



# PANDEMIC ACCORD PHASE II

## Pandemic Influenza

### Summary of Findings Report

Securities Industry & Financial Markets Association  
Federal Emergency Management Agency Region II Continuity Programs

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## EXERCISE OVERVIEW

<b>Exercise Name</b>	Pandemic Accord Phase II
<b>Exercise Dates</b>	November 13, 2014 (Functional exercise – Wave 1) November 20, 2014 (Functional exercise – Wave 2) December 1–3, 2014 (Tabletop exercise)
<b>Scope</b>	Pandemic Accord Phase II was the second in a two-part exercise series that seeks to increase readiness for a catastrophic influenza pandemic (Part I involved a tabletop exercise conducted in 2013). Phase II consisted of two functional exercises focusing on the response to two pandemic waves, and a tabletop exercise focusing on business recovery and reconstitution. The exercises examined continuity of operations; fostered partnerships between the public and private sectors; and identified promising practices, as well as issues or shortfalls in pandemic plans.
<b>Core Capabilities</b>	<ul style="list-style-type: none"> <li>• Planning</li> <li>• Operational Coordination</li> <li>• Public &amp; Private Services and Resources</li> <li>• Public Health and Medical Services</li> <li>• Economic Recovery</li> </ul>
<b>Objectives</b>	<ol style="list-style-type: none"> <li>1. Evaluate the ability to identify, establish, and manage necessary public-private partnerships during a pandemic influenza outbreak.</li> <li>2. Verify the receipt, notification, documentation, and implementation of continuity protocols to effectively maintain essential functions during a pandemic influenza outbreak.</li> <li>3. Substantiate mechanisms to effectively plan for, implement, and manage social distancing and other pandemic influenza protective measures among employees, stakeholders, and/or customers.</li> <li>4. Assess the effects of high levels of absenteeism on operational readiness during a pandemic influenza outbreak.</li> <li>5. Demonstrate business reconstitution approaches during post-wave recovery.</li> </ol>
<b>Scenario</b>	A novel influenza virus causes a catastrophic pandemic. The virus has an attack rate of 20 to 25 percent and a case fatality rate of approximately 2 percent. In New York City, the pandemic results in worker absentee rates approaching nearly 50 percent during the most severe wave.
<b>Sponsors</b>	Securities Industry and Financial Markets Association (SIFMA), the U.S. Department of Homeland Security (DHS), Federal Emergency Management



Agency (FEMA) Region II, the New York City and New Jersey Federal Executive Boards, and the New York City Department of Health and Mental Hygiene

**Participants**

Various public- and private-sector organizations (see Appendix A)

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## BACKGROUND

FEMA Region II—in partnership with the Securities Industry and Financial Markets Association (SIFMA), the Federal Executive Boards in New York City and northern New Jersey, and the New York City Department of Health and Mental Hygiene—conducted two functional exercises and a tabletop exercise in 2014 to improve readiness for an influenza pandemic. Collectively, the exercises comprised the second phase of a two-part series of exercises designed to enhance continuity planning among federal departments and agencies; U.S. Courts; state, tribal, and local jurisdictions; and the private-sector community.

### Scenario

A novel influenza virus, known as the Malta Flu, causes a pandemic. The virus has an attack rate of 20 to 25 percent and a case fatality rate of approximately two percent. In August 2014, the first wave of the pandemic starts to take hold in the United States. Sporadic cases of the flu have been confirmed in several large urban areas, including New York City. The U.S. Department of Health and Human Services declares a public health emergency. In early November, a cruise ship returns to New York City after cutting short a voyage to the Caribbean, due to nearly 200 passengers exhibiting influenza-like symptoms. During the pandemic's first wave, absentee rates climb as high as 35 percent across organizations in the public and private sectors.<sup>1</sup>

In January 2015, the second wave of the Malta Flu pandemic strikes New York City. This wave is more severe than the first wave, with absentee rates as high as 45 to 50 percent. Nearly all states have reported cases of the Malta Flu, and the Centers for Disease Control and Prevention (CDC) estimates pandemic-related deaths in the hundreds of thousands. A vaccine for the novel flu is finally becoming available, although supply of the vaccine is still limited.

By late April 2015, the CDC reports that the incidence rate of the Malta Flu has begun to decline around the country. This gives the medical community a chance to vaccinate additional people. Businesses slowly begin recovery and reconstitution efforts.

### Format

Prior to the exercises, a series of training webinars were held on September 23 and October 9, 2014.<sup>2</sup> The first webinar focused on federal and local government pandemic planning and included representatives from the New York City Office of Emergency Management, the Port Authority of New York and New Jersey, the New York State Division of Homeland Security, and the New York State Department of Health. The second webinar focused on power, communications, and internet connectivity and included representatives from AT&T, National Grid, U.S. Department of Health and Human Services, Samaritan's Purse, and the New York City Health and Hospitals Corporation.

### Functional exercises

The functional exercises were held on November 13 (wave 1) and November 20, 2014 (wave 2). They were conducted in a distributed manner, meaning that government agencies and private-

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<sup>1</sup> For the purposes of the exercises, being “absent” meant that an individual is unavailable to work, even if he or she has telecommuting capability.

<sup>2</sup> Appendix B provides a summary of each webinar, as well as links to the archived webinars.

sector companies participated in them from their respective offices. The exercise team used video and email injects to disseminate information about the evolving pandemic to participants. Each inject also included questions on business continuity operations for the participants to consider. Exercise play lasted from approximately 9:00 a.m. to 2:30 p.m., and an additional 30 minutes were allocated for participants to conduct an internal hotwash.

### Tabletop exercise

The tabletop exercise was conducted on December 1–3, 2014, as a facilitated discussion involving representatives from the public and private sectors. Participants were seated at tables of 6 to 10 people each, with approximately 50–100 people attending the exercise on each of the three days.<sup>3</sup> In addition, individuals who could not attend in person participated in the exercise from various locations around the country via webinar and teleconference. For example, ChicagoFIRST<sup>4</sup> led a group of approximately 40 people in participating in the tabletop exercise from Chicago, Illinois. Participants represented 18 ChicagoFIRST members, the City of Chicago Office of Emergency Management and Communications, Chicago Public Health, and FEMA Region V.

The exercise began with a presentation from Dr. Randy Martin and Ms. Julie Leblanc (both from Humana) on Employee Assistance Programs (EAPs<sup>5</sup>) and the resources that are available through EAPs to assist workers and their families during an emergency. Next, Jessica Cole, Senior Incident Specific Planner for the New York City Department of Health and Mental Hygiene spoke about the history of disaster resiliency research.<sup>6</sup>

The exercise moderator then introduced the exercise scenario and led participants into the first of two facilitated discussions, organized according to the following modules:

- **Module 1:** Post-wave assessment
- **Module 2:** Reconstitution

A facilitator at each table led participants through a discussion of the key issues and decisions they might face during the modules. Each module lasted approximately 45 minutes, followed by a brief report to the larger group. The exercise moderator also facilitated a hotwash at the conclusion of each exercise to highlight the promising practices and key issues that were uncovered during the exercise, and to share observations from the earlier functional exercises.

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<sup>3</sup> It is important to note that the same exercise was conducted on each day (December 1–3) for different groups of participants. Appendix A provides a list of participating organizations.

<sup>4</sup> ChicagoFIRST provides a forum within which critical firms (predominantly—but not exclusively—financial) collaborate with one another and, as a group, with government at all levels to promote the resilience of their individual firms through local, regional, and national relationships.

<sup>5</sup> See Appendix C for a brief summary and presentation slides.

<sup>6</sup> Appendix C also summarizes her comments.

## SUMMARY OF FINDINGS

This section summarizes key observations and common themes that emerged from the functional and tabletop exercises. Observations and themes are grouped by exercise objective and its corresponding core capability for ease of reference.<sup>7</sup> Findings from the functional exercises are presented first, as reported by the participants in Exercise Evaluation Guides and an online survey. The report then highlights key findings from the tabletop exercise. A brief description of the key discussion topics is presented, as well as any promising practices or planning gaps.

### Functional exercises (waves 1 and 2)

The following key findings were identified from approximately 20 online surveys completed for wave 1 and from 23 online surveys completed for wave 2.

#### **Objective: Evaluate the ability to identify, establish, and manage necessary public-private partnerships during a pandemic influenza outbreak (Core capability: Public and private services and resources)**

Public-private partnerships will be indispensable in the response to and recovery from a pandemic. These partnerships should be cultivated during preparedness planning in an effort to enhance resiliency and validate mechanisms for coordination between sectors during an actual crisis. For example, representatives from the public and private sectors can pre-identify areas of mutual interest, and prospectively plan for and evaluate potential solutions for those issues.

During response, an open, two-way exchange of information will be required to understand the impacts of the pandemic and the measures that government agencies and private companies are taking to protect themselves and their employees. This knowledge can benefit organizations in the following areas:

- Providing assumptions based on epidemiological data to help organizations plan their response strategies;
- Informing employees about when to seek medical assistance (e.g., when should they go to a medical professional?) and when people could expect to receive vaccine;
- Distinguishing fact from fiction in what is being reported via various media outlets;
- Leveraging social media as a communications tool to push information to employees, vendors, and customers, as well as to pull information from them;
- Understanding what actions are being taken to support transportation systems, utility providers, and the healthcare system; and
- Helping government agencies expand their reach and get key messages out to the public. For example, one organization stated that it could help government agencies disseminate information to the public via its ATM machines. Messages could be printed on paper receipts, as well as displayed on ATM screens. Similarly, important messages could be printed on account statements sent to customers.

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<sup>7</sup> The Economic Recovery core capability was the focus of the tabletop exercise and is addressed in that section of the report.

These partnerships can also aid pandemic response and recovery through changes in regulatory requirements. One-third of survey respondents stated that they might need to seek some form of regulatory relief in wave 1, depending on how the markets were responding. This percentage climbed to 43 percent in wave 2. Potential regulatory issues that might need to be re-examined and temporarily modified during a pandemic included the following:

- Easing regulations on registered locations for broker-dealers (i.e., to enact work-from-home policies);
- Modifying regulatory reporting schedules and/or trading hours; and
- Adjusting licensure requirements related to trading from overseas markets on the U.S. Stock Exchange.

**Objective: Verify the receipt, notification, documentation, and implementation of continuity protocols to effectively maintain essential functions during a pandemic influenza outbreak (Core capability: Operational coordination)**

Most organizations have well-established and tested protocols in place for activating their crisis management and/or business continuity team in response to an incident or imminent threat. Such a group will define the strategic response objectives and continuity of operation protocols for the organization. These teams typically include business continuity and emergency management subject matter experts, as well as safety and communications staff. Senior managers will define strategic objectives, and business unit managers will develop, monitor, and provide progress updates on the implementation of the response strategies.

Participants also noted the need to regularly assess incident-management decisions and activities as the pandemic unfolds. This will provide valuable feedback on whether response measures are achieving their objectives and inform potential changes in strategy based on “ground truth” data. Situational assessments enable an organization to continuously evaluate which business units are being hardest hit and provide valuable information to help determine where to pull resources in order to cover the most critical needs. Participants agreed that real-time responsiveness and integration of lessons learned into response operations are needed on a continual basis. Similar to the need for business continuity plans to be flexible and adaptable, so too must the members of an organization’s incident management team be flexible and adaptable in their approach to managing an incident.

**Objective: Substantiate mechanisms to effectively plan for, implement, and manage social distancing and other pandemic influenza protective measures among employees, stakeholders, and/or customers (Core capability: Public Health and Medical Services)**

Participants focused primarily on the prevention and mitigation strategies they would implement to reduce the risk of disease transmission for their employees. Strategies commonly cited included: (1) telework; (2) social-distancing practices in the workplace (e.g., cancelling face-to-face meetings); (3) devolving certain functions to different locations; (4) implementing staffing shifts to minimize contact between staff; and (5) providing on-site medical intervention. Some firms would also step-up workplace cleaning practices and provide employees with sanitizer or disinfectant wipes to reassure them that their work environment is clean.



Organizations will follow the guidance of local and national public health authorities in determining which precautions to implement and when. Some firms also have their own medical personnel, who would consult on these decisions. Importantly, participants noted that companies with offices located around the country or internationally will review mitigation strategies based on how the event is unfolding in different geographic areas and on the cultural norms of those areas. Companies would distribute information on protection and mitigation strategies to employees using several mediums (e.g., email, call trees, direct manager contact). Messages would include guidance on how, when, and where to seek medical attention and details on using personal protective equipment.

**Objective: Assess the effects of high levels of absenteeism on operational readiness during a pandemic influenza outbreak (Core capability: Planning)**

Although the exercise scenario resulted in significant impacts across participating organizations, most reported that their continuity plans were sufficiently robust to enable them to identify and sustain their essential functions during wave 1, despite absentee rates as high as 35 percent. There was a high level of confidence that current plans and training (e.g., cross-training of staff) would enable organizations to effectively shift personnel and resources from non-essential to essential functions. As absentee rates climbed to nearly 50 percent in wave 2, more organizations struggled to maintain essential functions, and, in several cases, companies had to curtail services or devolve essential functions to alternate locations. Some government agencies were unable to fulfill their essential services, such as processing applications for retirement and disability, as well as processing benefits payments.

Participants identified the following key planning challenges:

- Succession planning was a commonly cited area of concern, as many organizations have identified only one alternate for key positions. The process to fill gaps caused by the unavailability of the primary alternate either has not been defined or is poorly understood. Several firms noted that the lines of succession were not deep enough to handle multiple losses in the leadership ranks. Participants also noted the need to improve the tracking of employee departures and promotions, as well as their potential impact on succession planning.
- Participants noted the inherent difficulty in planning for the emotional toll that a pandemic will have on staff. Although some personnel may never become physically ill, the emotional strain of the pandemic (e.g., caring for loved ones or colleagues who become ill) will almost certainly impact everyone's ability to perform their jobs to their normal capabilities. This prompted organizations to consider how to integrate EAP and other support services early on in the response.
- Many organizations lacked the ability to obtain accurate data on staff absenteeism in real-time. Not surprisingly, this issue is more problematic in large organizations due to delays in collecting and aggregating data across multiple business units.
- The most commonly cited policy gaps were related to:
  - Protecting employee privacy and the confidentiality of health information;
  - Avoiding discrimination in making services available to sick/potentially sick employees or customers;

- Keeping non-essential personnel from reporting to work (e.g., what legal rights does a company have to prevent non-essential staff from coming to work?);
  - Adjusting flexible work arrangement policies; and
  - Permitting employees to return to work post-illness.
- Participants reported wanting to develop more robust processes to help them understand third-party vendor interdependencies, impacts, and mitigation strategies.

## Tabletop exercise

This section discusses key themes that emerged from the tabletop exercise. The order in which issues are presented does not convey assignment of importance, and the promising practices will not necessarily apply to all organizations.

### **Objective: Demonstrate business reconstitution approaches during post-wave recovery. (Core capability: Economic Recovery)**

**Recovery and reconstitution planning is often reactionary.** Because the focus of business continuity planning is primarily on how organizations will respond to an incident, there tends to be limited institutional knowledge of recovery plans and priorities. As businesses transition into recovery, leadership must demonstrate a plan or vision, even if the specifics of that plan are still being developed.

- *Promising practice:* Establish metrics ahead of time that can be used to assess progress during recovery, and consider how the organization can communicate this information to employees, clients, partners, and stakeholders in a meaningful way.
- *Promising practice:* To the extent possible, integrate business continuity practices into normal business operations to foster familiarity among staff.

**Communications, both internal and external, are as critical during recovery as they are during response.** Consistent messaging will be necessary to ensure that employees, clients, partners, and stakeholders know what the company is doing to recover and what type of assistance is available. Participants stressed the importance of communicating early, often, and using various formats. In addition, the operational tempo for getting information to staff may not change during the initial recovery period from the tempo used in the response. This will help ensure that issues are identified and addressed quickly.

- *Promising practice:* Keep messages simple, clear, and actionable. Put critical information up front, and include links to additional details. This can help improve comprehension and retention.
- *Promising practice:* Be honest with employees and other stakeholders about what you do not know to build trust and set realistic expectations.
- *Promising practice:* Use communications platforms such as Send Word Now and Everbridge to communicate with employees through various technologies in an emergency.

- *Promising practice:* Institute a “buddy system” in which employees are paired up and encouraged to check in with one another to assess whether they have any specific needs. This information can then be relayed to corporate officers.
- *Challenge:* The timing of communications—knowing when and how often to provide information—can be difficult, especially for different constituencies. A balance needs to be struck between keeping people updated and overloading them with non-essential information.

**Two keys to a successful communications campaign will be the ability to manage copious amounts of information and to guard against rumors.** Organizations must distinguish between the ground truth and “noise,” which is unsubstantiated information (or rumor) that can negatively affect an organization’s ability to respond effectively. Vast amounts of information will circulate through various media outlets, including social media. This can inhibit people’s ability to make sound decisions. One way an organization can help its employees is by serving as a sort of information filter; that is, give employees a one-stop shop where they can go to receive timely and credible information.

- *Promising practice:* Establish a rumor-control officer who can verify information and monitor messages being disseminated on social media. Dispel any misinformation as quickly as possible.
- *Promising practice:* Educate employees on the potential dangers/harm that can come from posting unsubstantiated information on social media forums.
- *Promising practice:* Encourage people to share information gleaned from trustworthy sources, such as CDC, the New York City Department of Health and Mental Hygiene, the World Health Organization, the Securities and Exchange Commission, or the United Nations.

**Organizations need to balance a desire for proactive, timely communications with the need to respect employee privacy.** It can be tempting during a disaster to disseminate information to or about your employees as quickly as possible under the premise that the more people who know, the better. However, participants emphasized the need to respect employee privacy and maintain the confidentiality of health information. Federal regulations, such as the Health Insurance Portability and Accountability Act (HIPAA), will remain in effect during a pandemic. HIPAA protects individually identifiable health information from uses and disclosures that unnecessarily compromise the privacy of an individual.

- *Promising practice:* Consult your legal counsel before an incident occurs to understand what you can and cannot share with your employees.

**An iterative assessment process provides the foundation for recovery and reconstitution.** To make informed strategic decisions and allocate resources efficiently, leadership must first understand how an incident has impacted various parts of the organization. This is typically accomplished through an iterative assessment-process, implemented by an organization’s crisis management or business continuity team. The assessment should focus not only on the potential vulnerabilities of the organization, but also on how the organization might be able to position itself to take advantage of potential opportunities during the recovery period. Many participants discussed the output of the assessment process and the importance of defining the desired end-product before you begin. This was typically discussed in terms of developing impact and threat

matrices. For example, what is the impact to staff and the organization's ability to conduct operations? Where is the organization most vulnerable to losing market share to competitors or to malicious threats, such as a cyber attack?

For large organizations, conducting a comprehensive assessment can be resource intensive and time-consuming. To use resources most efficiently, companies often prioritize the assessment by starting with those business units that are thought to be the most important to recover first. In the financial services sector, this usually means giving priority to the money-making or most-profitable business units, such as traders. Other participants noted that they would prioritize information technology (IT) in order to make sure that IT infrastructure is operating as needed. Regardless of the final priority strategy chosen, organizations will benefit from planning ahead about how to prioritize the post-incident assessment.

- *Promising practice:* Start by reviewing the backlog of work that needs to be completed, and prioritize the assessment based on which business units are most impacted by the backlog.
- *Promising practice:* Ensure that assessment procedures include provisions for receiving timely feedback from managers of each business unit regarding their status and recovery priorities.
- *Promising practice:* Develop a coalition of firms to facilitate certain aspects of the post-incident assessment. This strategy recognizes the interdependencies of firms and is based on the premise that if one large institution fails, it can bring others down with it. A coalition model can also help to build consistency across an industry in terms of how organizations focus their efforts to recover and reconstitute their operations. Similar models have become common among healthcare institutions (e.g., helping to enhance the collective capacity for emergency preparedness, response, and recovery in a geographic area).
- *Promising practice:* Consider potential new business or market opportunities that may present themselves in the aftermath of the pandemic, and how the organization might be able to position itself to go after those opportunities while also focusing on recovery of core competencies.
- *Challenge:* Participants recognized that organizations will be constrained somewhat by the ability of their key vendors and partners to recover. However, most acknowledged that they currently lack a reliable process for assessing third-party vendors and suppliers, even those essential to their operations.

**Establish both short-term and long-term recovery objectives for the organization.** There is strategic value in recognizing that an organization will not be able to recover all functionality at the same time. Short-term objectives might focus on identifying and filling gaps in any critical positions needed to continue performing essential functions. This period will also be defined by transitioning the organization from a survival mentality to an operational rhythm that is more permanent and sustainable. Examples of longer-term objectives may be exploring new vendor/partner relationships and integrating lessons learned from the after-action review process into policies, plans, and procedures.

- *Promising practice:* Promote stability in the immediate recovery phase by extending, to the extent possible, policies or benefits for employees that were enacted during the response phase.
- *Promising practice:* Consider bringing in an external company to talk to staff about what has happened, what resources are available, and how to access them. This should be done in tandem with (not in place of) your own organization providing this information.
- *Promising practice:* Be honest with employees up front about the organization’s recovery constraints and set realistic timelines. This can build trust among staff and demonstrate that leadership has a plan for returning the organization to a normal or near-normal operating status.

**Assessing the recovery needs of individual employees is as important as assessing the needs of the organization.** Supervisors should be trained on how to communicate with their employees and what signs to look for to help employees through the recovery process. Participants also emphasized the importance of extending recovery assistance not only to the individual employee, but also to his/her family.

- *Promising practice:* Review Employee Assistance Program (EAP) services/resources in advance of an incident to make sure you know what you have at your disposal and how to access those assets. In addition, ensure that EAP services are equally available to those in the workplace and those working remotely.
- *Promising practice:* Consider establishing a specific administrative code for employees who must take time away from work to recover from an illness or care for a sick family member. This provides flexibility to staff who need to take extended time off, but who may not otherwise have the sick leave or vacation time to do so.
- *Promising practice:* Allow employees to define whom they consider to be family, as traditional definitions of “family” may not be sufficiently comprehensive.
- *Promising practice:* Be protective and respectful of employees’ downtime. Managers should respect their employees’ downtime as much as they respect their work time.
- *Promising practice:* Plan for employees who may have disabilities, and make sure that services provided by the organization are available to everyone.
- *Promising practice:* Be vigilant of employees’ mental and emotional health—even months after an incident—to identify any signs of delayed problems. As people return to work and normalize, emotional issues may surface. It is important to remember that relationships that employees counted on in the past for support may no longer be available to them.
- *Challenge:* Currently, many firms in the financial services industry are downsizing, which could leave employees reluctant to do anything that might make them appear dispensable. This could mean that staff are more likely to show up for work even if they are not feeling well, thus putting others at risk.

**Defining the “new normal” will be important, although how that will be done is not clear.**

Due to the catastrophic nature of the pandemic, participants recognized that recovery will entail establishing a new normal for operations (e.g., a return to “business as usual” will not occur

quickly, if at all). The new normal may not only reflect internal changes in the organization, but also reflect changes in customer needs. Therefore, how organizations interact with their customers may have to evolve, as well. Participants acknowledged that it is difficult to plan ahead, given all of this uncertainty; however, they noted that maintaining flexibility will be important. In addition, company policies and procedures should be reviewed and revised to be consistent with the new operating paradigm.

- *Promising practice:* Re-evaluate your organization's partners in light of a new operating paradigm (e.g., who should the organization coordinate with to meet its new objectives and execute its strategy?).
- *Promising practice:* Evaluate new or emerging business sectors/opportunities based on post-incident realities.
- *Promising practice:* Maintain flexibility, and avoid defaulting to traditional approaches. For example, minimize redundant, superfluous reporting requirements (e.g., change status reports from weekly to monthly), as this can help employees allocate their time more effectively and efficiently.

**Organizations will likely struggle to replace employees in a timely manner.** One of the most challenging aspects of recovery will be replacing employees who have died, are no longer physically or mentally able to perform their duties, have new responsibilities (e.g., serving as a caregiver) that prevent them from working, or simply are reluctant to return to the workplace. Although the latter group (employees who are healthy but do not want to return to work) is likely to be fairly small, they present a significant challenge. Companies will have to determine whether they can accommodate such employees remotely and, if so, for how long—and at what point the organization may need to sever ties. Policies may also need to consider how reduced schedules may affect employees' eligibility for certain benefits. Most participants did not have a good sense of how their organization would respond in this type of situation.

In addition, participants from both the public and private sectors noted that hiring processes are lengthy, often taking several months or longer to bring new staff onboard. The need to conduct background checks and fulfill security clearance and licensure requirements were cited as common barriers to hiring staff quickly. Furthermore, the candidate pool may be limited, due to stiff competition and the potential for the pandemic to disproportionately affect working-age adults.

- *Promising practice:* Be flexible in dealing with employees. Not everyone is going to respond the same way to this type of incident. It is important to engage them and let them feel that they have input into the process. At the same time, if you try to do things ad hoc, your strategy may be inconsistent, which could lead to more friction among staff.
- *Promising practice:* If relevant, be in constant coordination with union representatives to ensure they are aware of your policies (and changes in policies) as the event unfolds.
- *Promising practice:* Identify methods to expedite the hiring process, such as contracting with temporary employment agencies to augment staffing.
- *Promising practice/challenge:* Cross-train existing staff to fill vacancies. Participants noted, however, that certain positions can be difficult to fill through cross-training, due to strict regulatory requirements or the need for highly specialized skillsets. In addition, due

to union regulations, it may be difficult to cross-train union-member employees to complete tasks that fall outside of their job description.

- *Promising practice:* Explore the possibility of rehiring employees who may have recently retired but who still possess the knowledge, skills, and experience needed to successfully execute a job.
- *Promising practice:* Examine whether certain duties can be automated rather than completed by a person.
- *Promising practice:* Seek regulatory relief for certain requirements to hasten the hiring process or to enable existing staff to fulfill new responsibilities. For example, if a position requires the employee to possess a certain license, the organization could request a six-month waiver while the employee tries to secure the license.

**Regulatory relief may help facilitate recovery, but it was unclear exactly what type of relief might be requested.** The financial services industry is intensely regulated, and participants noted that receiving temporary relief of certain regulations could help facilitate recovery. However, participants noted that many factors could influence the type of relief needed; therefore, it was difficult to know in advance what might be requested. For example, if there were low levels of liquidity and high volatility in the markets, then you might need regulatory intervention to help prevent people from “cornering the markets.” Regulators have been hesitant to give baseline criteria for when they would be willing to grant regulatory relief, for fear of setting a precedent. This makes it difficult for companies to proactively plan for such requests.

If necessary, financial firms would coordinate with their trade association based on the area of the business that is impacted (e.g., banking, brokerage, asset management) to request regulatory relief, rather than requesting relief one organization at a time. Organizations such as SIFMA, the American Bankers Association, and the Investment Company Institute would serve as an information clearinghouse between regulators and financial institutions.

- *Promising practice:* Plan for how your organization might provide relief to your customers to aid in recovery. For example, a company could temporarily relax consumer obligations, such as payment schedules, or waive overdraft fees. One firm reported that it checks with call centers to see what types of issues/questions customers have; if they identify any concerns, the firm activates its executive board to review the situation and determine if a change of policy is warranted. It is important to consider not just when you might implement a change in a policy, but also when you would deactivate it.

**Most organizations have established formal after-action processes; however, tracking corrective actions through implementation can prove difficult.** While nearly all organizations reportedly have processes in place to conduct after-action reviews, several participants noted that their organizations are inconsistent in tracking corrective actions through implementation. The benefit of the after-action process is realized only if action is taken to build upon strengths or fix areas for improvement. Following the implementation of corrective actions, changes to policies, plans, or procedures should be evaluated through trainings, exercises, or real-world incidents to ensure that they result in improved outcomes.

- *Promising practice:* Formalize the process to implement and evaluate corrective actions, including specific milestones, timelines, and assignment of responsibility.

- *Promising practice:* Seek input from business unit managers to inform the after-action review process. Organizations may also provide mechanisms to collect feedback from all employees. One technology cited to facilitate employee input was the Interactive Customer Evaluation—a web-based platform that employees can use to submit feedback for the after-action report.
- *Promising practice:* Prioritize corrective actions based on the associated risk to the organization.

**Participants were uncertain about how to properly recognize or reward employees who performed exceptionally during the pandemic.** Participants noted that some staff members will go beyond the call of duty during the pandemic, and it is important to recognize their efforts and contributions to the firm. This can be done through financial recognition, vacation, or some other means. The challenge, however, is doing this in a way that does not make those who were sick or unable to work due to caregiving responsibilities feel disenfranchised. Employees should not feel punished because they were sick or caring for loved ones.

- *Promising practice:* Seek input from staff on how to reward high performers during a disaster, and communicate proactively to let employees know that such rewards are not meant to minimize the burdens experienced by others during the incident.



## CONCLUSIONS AND NEXT STEPS

Pandemic Accord Phase II consisted of two functional exercises and a tabletop exercise that examined public- and private-sector business continuity plans within the context of a pandemic. The exercises successfully met their objectives and provided a collaborative forum for government agencies and private-sector organizations to learn from one another, share promising practices, and build relationships that may help to further enhance pandemic and business continuity planning.

The exercises revealed that most organizations have fairly mature business continuity plans and processes in place, which have been tested and refined through exercises and real-world incidents, such as Hurricane Sandy. This has improved the ability of organizations to maintain their essential functions, even with employee absentee rates as high as 50 percent.

The functional exercises revealed gaps in the ability of many organizations to track employee absentee data in real-time, as well as in succession planning. There were also common concerns about the ability to support extensive teleworking by employees over an extended period of time. The tabletop exercise highlighted the importance of conducting a comprehensive assessment to identify key vulnerabilities within the organization and to align available resources with a firm's most-important functions. Other overarching findings included the importance of maintaining continual, proactive communications to staff, clients, vendors, and partners; ensuring that continuity plans and processes are flexible and adaptable; planning for multiple, alternative work arrangements and the processes to support them; and remaining vigilant about supporting the physical and emotional needs of staff during recovery and reconstitution phases.

Pandemic Accord Phase II concludes a two-year exercise cycle focusing on business continuity in the context of a catastrophic pandemic. Continued dialogue between public- and private-sector organizations is recommended to build on the knowledge gained from these exercises and to enhance continuity planning for pandemic and all-hazard incidents. For the next two-year cycle, FEMA Region II intends to sponsor additional public-/private-sector exercises and is exploring potential scenarios, including but not limited to an electromagnetic pulse event and/or the detonation of a radiological dispersal device, or "dirty bomb."

## APPENDIX A: LIST OF PARTICIPATING ORGANIZATIONS

APG	Humana
Axa-Equitable	Illinois Department of Public Health
Banco Corpbanca	Immigrations and Customs Enforcement
Bank of America	ING Investment
Barclays	Insurance Company of America
BMO Capital Markets - Chicago	Intercontinental Exchange
BMO Harris	Internal Revenue Service
BNP Paribas	Jackson Insurance
BNY Mellon	JP Morgan Chase Bank
Broadridge Financial Solutions, Inc.	LeGendre Expressions
Brookhaven Labs	MB Financial Bank
Brown Brothers Harriman	Mesirow Financial
Capital One	Millenium Management LLC
Centers for Disease Control and Prevention	Mizuho Securities USA, Inc.
Charles Schwab & Company	National Grid
Chicago Board of Options Exchange	Navy Federal Credit Union
Chicago Department of Public Health	New Jersey Department of Agriculture
Chicago Office of Emergency Management	New Jersey Office of Homeland Security and Preparedness
ChicagoFIRST	New York City Department of Health and Mental Hygiene
Citadel Group	New York City Federal Executive Board
Citibank	New York City Office of Emergency Management
CME Group	New York Life Insurance Company
CNA Insurance	New York Stock Exchange
Commerzbank	Nomura
Commodity Futures Trading Commission	Northern New Jersey Federal Executive Board
Commonwealth Edison	Northern Trust
Community Bank	Oaktree Capital Management
Daiwa Capital Markets America, Inc.	Options Clearing Corporation
Depository Trust & Clearing Corporation	Pacific Life Insurance
Envestnet	Pershing LLC
Fannie Mae	Private Bank
Federal Aviation Administration	PSEG
Federal Bureau of Investigation	RBC Capital Markets
Federal Home Loan Bank of Chicago	Santander
Federated Investors	Securities Industry and Financial Markets Association
FEMA National Continuity Programs	Social Security Administration
FEMA National Exercise Division	Synchrony Financial
FEMA Region II	TD Ameritrade

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FEMA Region V	The Clearing House
Fidelity	U.S. Army Corps
Fidessa	U.S. Commodity Futures Trading Commission
Financial Industry Regulatory Authority	U.S. Courts
Fiserv	U.S. Department of Health and Human Services
Freddie Mac	U.S. Department of Homeland Security
Fusion	U.S. Northern Command
Gartner, Inc.	UBS
Gaurdia Life	United Nations
General Services Administration	Waddell & Reed
Goldman Sachs	William Blair & Company
Harbor Funds	

## APPENDIX B: PRE-EXERCISE PANDEMIC WEBINARS

Prior to the exercises, FEMA Region II sponsored two webinars that focused on government and private-sector planning for an influenza pandemic. Brief summaries of these webinars are provided below, as well as a link to

### Webinar I: Federal and Local Government Pandemic Planning

September 23, 2014

<https://share.dhs.gov/p7b0mlqsepi/>

Agency	Speaker	Topic
New York City Office of Emergency Management	Ira Tannenbaum	How would the New York City Office of Emergency Management (NYCOEM) keep essential services going during an infectious disease outbreak?
Port Authority of New York and New Jersey	Gerry McCarthy	How would New York transportation (e.g., airports, bridges) be impacted during a disease outbreak?
New York Department of Homeland Security	Jerry Hauer	How would state services be impacted in the event of a pandemic?
New York State Department of Health	J. Silva/Howard Zucker	What services would be prioritized in the event of disease outbreak?

Featured speakers included NYCOEM, Port Authority of New York and New Jersey, New York State Division of Homeland Security and Emergency Services, and New York State Department of Health. Each agency identified essential services that would continue in a continuity of operations event, with a special focus on serving public need while responding to high levels of staff absenteeism. NYCOEM discussed the importance of working with the private sector to determine how the essential functions of the private sector align with the essential functions of government agencies. The Port Authority noted its dependence on the federal government's ability to maintain operations, as well as its role in sustaining and rebuilding economic stability. The New York State Division of Homeland Security took a comprehensive stance on pandemic planning, similar to NYCOEM. Both the New York State Department of Health and the U.S. Department of Health and Human Services (HHS) have detailed pandemic plans in place, which covered all sectors of emergency management according to Presidential Policy Directive #8. Both worked to bring the various plans and terminologies from the World Health Organization and the CDC in line with internal department policies.

### Webinar II: Power, Communications, and Internet Connectivity in a Pandemic Event

October 9, 2014

<https://share.dhs.gov/p737vy5uar9/?launcher=false&fcsContent=true&pbMode=normal>

Agency	Speaker	Topic
AT&T	Wendy Panella/ Robert Desiato	What services would be prioritized if everyone had to work from home? Would there be any backbone/last-mile issues?

U.S. Department of Health and Human Services	Andrew Chen	What resources could HHS contribute when many of their staff may be unavailable during a pandemic wave?
National Grid	Eugene Buerkle	Will power resources remain constant during an infectious disease outbreak?
Samaritan's Purse (Africa-based Nongovernmental Organization)	Lance Plyler	What steps have been taken to protect staff during the Ebola crisis?
New York City Health and Hospitals Corporation	Nicholas V. Cagliuso, Sr.	How are healthcare systems preparing for a pandemic?

The second Pandemic Training Webinar focused on the private sector's response to a pandemic. As noted in the first webinar, the private sector identified governmental continuity of operations as critical to its own. AT&T was primarily concerned with assessing service impacts and the prioritization of services. National Grid sought to make sure power resources remained intact during each wave of the pandemic. Samaritan's Purse made clear that protection was preparedness, emphasizing the importance of protective equipment for staff. The NYC Health and Hospitals Corporation built upon lessons learned from local outbreaks to plan for possible interruptions of core services.

## APPENDIX C: TABLETOP EXERCISE PRESENTATIONS

Provided below are summaries of the presentations that Dr. Randy Martin and Ms. Jessica Cole gave at the start of each tabletop exercise. Dr. Martin, representing Humana, spoke about the role of Employee Assistance Programs (EAPs) in supporting organizations during the response to and recovery from a crisis, such as a pandemic. Ms. Cole, a Senior Incident Specific Planner for the New York City Department of Health and Mental Hygiene, spoke briefly about the history of disaster resiliency research. Following the summaries are copies of the slides from Dr. Martin's presentation.

**Randy Martin, Humana**

**Julie Leblanc, Humana**

**Topic: Psychological Preparation for Pandemic Influenza in Organizational Settings**

Dr. Martin discussed common responses of employees during crises, the importance of resilience (organizational and individual), and strategies for building resiliency. Many EAPs offer Critical Incident Response Programs that can deliver services to employees either on-site or remotely. Most EAPs also offer Work-Life Programs to help employees and their families with pragmatic needs, such as arranging for childcare or assisting with funeral arrangements.

Employees respond to stress in different ways. Generally speaking, employees will likely fall into one of the following categories:

- “Fight” characterizes employees who become increasingly combative with coworkers, managers, and friends and family during stressful events.
- “Flight” characterizes employees that are more likely to stay away from work, even if they are not sick or serving as a caregiver.
- “Freeze” characterizes employees who will show up to work but will be essentially unable to function (i.e., they are present physically but are not productive).
- “Focus” characterizes employees who do well under stress and are able to concentrate on the task at-hand, while putting other concerns aside. Fortunately, there are more of these types of people than one thinks, perhaps as many as one-third of an organization's staff.

It is important to understand what people are going to prioritize in a crisis so that organizations can tailor resiliency program offerings accordingly. At the start of a pandemic (i.e., the first 14 days), employees will be concerned primarily with basic survival needs rather than their psychological needs. Examples of issues that employees may prioritize include having sufficient supplies of food and water, ensuring that they continue to get paid, and applying for medical leave of absence. Between two weeks and three months, the focus will shift to things like caregiver stress. Beyond three months (and perhaps up to several years), employees may have survivor's guilt, experience complicated bereavement, and have a need for counseling. Dr. Martin noted that approximately 20 to 25 percent of the population experiences mental health issues, which may include things like anxiety and depression. Epidemiologically, extreme anxiety is most likely to occur during a pandemic.

In addition, Dr. Martin discussed the concept of emotional contagion; that is, people tend to “catch” other people's emotions. While it is common to think of this as fear or panic spreading

among groups, it is also important to remember that a calming behavior can be contagious. Organizations can benefit by identifying employees who convey self-assurance during stressful situations and empowering them to help during a crisis. Another concept discussed was “Locus of Control,” which is a term used to define the continuum between people who are prone to blaming external factors for their situation (i.e., external locus of control) and those who believe that they control their own destiny (i.e., internal local of control). The latter group tends to fare better in stressful situations. People fall somewhere along the continuum between external and internal loci of control, but it is possible to move people along the continuum to some extent.

Dr. Martin next highlighted the following activities to help build resiliency:

- Building resiliency before a pandemic
  - Secure buy-in from leadership and line management.
  - Train managers to build their own resilience, and learn how to foster greater resilience in employees.
  - Provide training for managers on how to communicate with employees and how to recognize signs of stress.
  - Provide training and education to employees on how to build individual resilience.
- Building resiliency during a pandemic
  - Normalize emotions by demonstrating that it’s fine to feel a surge of emotions during an incident.
  - Provide as much structure and routine as possible, and give people an opportunity to help others.
  - Acknowledge what you don’t know, as this will build a trusting relationship between senior management and staff.
  - Rotate workers from high-stress jobs to lower-stress jobs (to the extent possible).
  - Partner experienced people with non-experienced people.
  - Provide flexibility in scheduling.

Finally, Dr. Martin reminded participants of the need to pay special attention to conscientious workers. These are people who do not often complain and are less likely to ask for help. They will be more susceptible to “quiet burnout.” In addition, it is important to remember that people often feel a need to give social support (not just to receive it); therefore, companies should try to provide opportunities for employees to help others either in the organization or within their communities.

**Jessica Cole, New York City Department of Health and Mental Hygiene**  
**Topic: Brief History of Disaster Resiliency Research**

Following the EAP presentation, Jessica Cole provided an overview on the history of disaster resiliency research. Ms. Cole noted that this area of research is relatively new and began around the mid-20<sup>th</sup> century in order to look at what responses might be to a nuclear attack. Research suggests that there likely will not be mass hysteria during a pandemic; rather, people tend to come together and will want to help their colleagues and others in their communities.

Ms. Cole also emphasized the importance of integrating resiliency-building behaviors into day-to-day life. Doing so helps to build trust among an organization’s employees, which is vital to

have when a disaster strikes. In addition, Ms. Cole provided a few personal anecdotes about the importance of respecting employees' downtime during stressful events. This will help to not only re-energize employees, but may also foster a sense of loyalty to an organization that can have substantial long-term benefits.

Finally, Ms. Cole talked about the importance of being an "information leader." This does not mean recreating information or messages that public health and other agencies have already developed; rather, organizations need to be able to point people in the right direction to get information from trusted sources.



## EAP and Work-Life Services



## Psychological Preparation for Pandemic Influenza in Organizational Settings

Randy Martin, PhD  
Director, Humana  
EAP  
12-1 to 12-3-14

**Humana**<sup>®</sup>

# Objectives

- Identify anticipated psychological responses by employees to an influenza pandemic
- Recognize the importance of personal and organizational resilience in managing the psychological impact of a pandemic
- Understand strategies for proactively building a culture of organizational resilience prior to a pandemic
- Learn what organizational leadership can do to maintain work continuity during and after a pandemic

# Understanding why we respond the way we do in high-stress situations

- When early humans encountered danger, their bodies prepared them for “fight,” “flight,” or “freeze.” People today respond to modern stressors in much the same way, even though these are not necessarily productive responses.
- Responses to stress during a pandemic will differ from individual to individual. People who have a tendency to “fight” are likely to engage in interpersonal conflict. People who characteristically “flee” will refuse to come into work and may take a medical leave of absence. Those who “freeze” will feel numb, helpless, and unable to function.
- People who demonstrate resilience, however, will be less likely to fight, flee, or freeze and will be more likely to constructively respond to stressful circumstances like a pandemic.

# Considerations

- There is no way to predict with accuracy how employees will respond during a flu pandemic, although prior experience with the aftermath of traumatic events offers some guidance.
- The severity of the emotional impact will depend on several factors, including the number of people affected, the mortality rate, and the stability of community infrastructure, e.g., transportation system.
- The role of organizational leadership in managing responses to a pandemic is crucial. Plans will only be as effective as the people carrying them out.
- Organizations that have developed a “culture of resilience” will be more likely to effectively respond to a crisis.

# How a pandemic would impact employees

- Fear for personal and family safety
- Grief over loss of family members/friends
- Anxiety about finances and meeting everyday needs
- Depression, hopelessness, and worry about the future
- Anger at community leaders and/or employers if there is a perception that response to the pandemic is inadequate
- Feeling helpless; loss of control

# Anticipated reactions to grief and loss

Several aspects of a pandemic may complicate grief and loss reactions.

- Inability to see loved ones or say “good-bye” to those who may die in the hospital or while separated from family.
- Inability to retrieve the body for timely burial or funeral rituals.
- Shortage of caskets, burial sites or crematoriums.
- Mass stockpiling of corpses until burial or cremation can be facilitated.
- Reactivation of previous losses.

Source: Division of Mental Health Services, NJ Department of Human Services

# What will happen in the workplace?

Signs and symptoms of stress:

- Behavioral, e.g., hostility, impulsivity, misuse of alcohol and prescription or illicit drugs, errors and accidents, poor performance
- Cognitive/emotional, e.g., anxiety, depression, decreased concentration, mood swings
- Physical, e.g., fatigue, headaches, poor or increased appetite, muscle pain

# Building resilience to manage stress

- Resilient people and organizations will be best prepared to cope during and after a flu pandemic
- Resilience is an important component of “stress hardiness”
- Applies to both individuals and groups
- Can be fostered by organizational leadership before a pandemic, during a pandemic, and after a pandemic



## What is resilience?

The ability to recover quickly from stress, change, or misfortune; buoyancy.

# Where does individual resilience come from?

- Genetic factors
- Psychological factors
- Culture/beliefs/values
- Role models
- Problem-solving skills
- Social support
- Physical health/well-being

## Building organizational resilience before a pandemic

- Get leadership and line management on board by demonstrating the importance of building resilience and managing stress
- Train managers to boost their own resilience and learn how to foster greater resilience in employees
- Provide scenarios on communicating with employees during a pandemic or other traumatic event and ask managers to participate in role plays
- Offer organizational-wide resilience training to employees

# Promoting a positive emotional response during a pandemic (1)

- Communicate early and often
- Demonstrate that your organization and leadership can be trusted
- Share what you know *and* what you don't know as the situation develops
- Identify a consistent messenger with authority to disseminate information
- Use a flexible style of communication
- Ensure two-way dialogue
- Be attentive and responsive to diversity in the workplace

Source: *Pandemic Influenza Preparedness*; Journal of Homeland Security and Emergency Management, 2006. Information provided by Crisis Care Network.

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## Promoting a positive emotional response during a pandemic (2)

- Create a website to serve as a central source of authoritative information; include access to resources like the EAP and articles on managing stress
- Develop fact sheets and tip sheets for taking care of yourself and your family emotionally
- Suggest using your Work-Life services to help employees balance work, personal, and family needs
- Promote resilience – set manageable goals, maintain optimism, take reasonable steps to ensure safety, encourage giving/receiving emotional support in creative ways, etc.

Source: *Pandemic Influenza Preparedness*; Journal of Homeland Security and Emergency Management, 2006. Information provided by Crisis Care Network.

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## Promoting a positive emotional response during a pandemic (3)

- Train leaders within the workforce on the importance of stress management and psychosocial support
- Provide training for managers on how to identify employees who need additional help
- Empower staff with promotion of reasonable work/rest cycles
- Identify pre-arranged rest/recuperation areas supplied with food, relaxation aids, resources, and means for communicating with significant others
- Recognize that emotional reactions (grief, anger, fear, etc.) are normal responses to this highly unusual challenge

Source: *Pandemic Influenza Preparedness*; Journal of Homeland Security and Emergency Management, 2006. Information provided by Crisis Care Network.

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## Ways your EAP can help

- Assist with emotional support for employees in distress
- Facilitate referrals to face-to-face sessions for employees who want to meet with someone to talk about their concerns
- Offer telephonic sessions for employees who do not want to meet with counselors face-to-face
- Provide manager consultation to support managers in working through the complex employee situations and concerns that may come up over the course of a pandemic flu outbreak
- Offer Critical Incident support: on-site counseling in a group or 1:1 format to help employees who may be experiencing the aftermath of a traumatic incident related to the pandemic

## Ways Work-Life Services can help

- Adult care options for caregivers of older adults who may be experiencing health problems related to the pandemic, or who may have lost their regular healthcare aid or other supports as a result of the pandemic
- Child care assistance for parents whose children may no longer have access to daycare, school, or in-home child care
- Targeted referrals or community assistance that may be available for those impacted by the pandemic



# Summary

- Psychological preparation for an influenza pandemic is as important as physical preparation
- A pandemic will have widespread emotional impact on the lives of employees and will be particularly difficult for those without strong coping skills
- Building organizational and individual resilience before and during a pandemic can help employees cope and foster business continuity
- EAP and Work-Life Services are valuable resources for building and maintaining resilience

## APPENDIX D: FUNCTIONAL EXERCISE SURVEY RESPONSES

The following data were collected for the two functional exercises using an online survey. Approximately 20 companies completed the survey following wave 1, and 23 companies completed the survey following wave 2.

### Exercise design and development

For each statement, participants were asked to rate, on a scale of 1 to 5, their overall assessment of the exercise, with 1 indicating strong disagreement and 5 indicating strong agreement.

*The two-year Pandemic Accord exercise series met the needs of my agency/organization in enhancing our internal continuity of operations (COOP) capabilities.*

(1) Strongly Disagree	(2) Disagree	(3) Neither Agree nor Disagree	(4) Agree	(5) Strongly Agree	DK/NA <sup>8</sup>	Total Responses	Mean
0	1	1	11	6	1	20	4.25

*The pandemic webinars held prior to the 2014 Pandemic Accord exercise improved my knowledge of key considerations for pandemic and COOP planning.*

(1) Strongly Disagree	(2) Disagree	(3) Neither Agree nor Disagree	(4) Agree	(5) Strongly Agree	DK/NA	Total Responses	Mean
0	2	3	8	4	3	20	4.15

*Exercise training and meetings were relevant and enhanced my ability to participate in the exercise.*

(1) Strongly Disagree	(2) Disagree	(3) Neither Agree nor Disagree	(4) Agree	(5) Strongly Agree	DK/NA	Total Responses	Mean
0	0	7	7	5	0	19	3.89

<sup>8</sup> “DK/NA” stands for “Don’t Know/Not Applicable.”

*The exercise Situation Manual and exercise briefings were informative and provided the necessary information for my role in the exercise.*

(1) Strongly Disagree	(2) Disagree	(3) Neither Agree nor Disagree	(4) Agree	(5) Strongly Agree	DK/NA	Total Responses	Mean
0	1	5	7	6	1	20	4.05

*The exercise increased my understanding about and familiarity with the capabilities and resources of other participating organizations.*

(1) Strongly Disagree	(2) Disagree	(3) Neither Agree nor Disagree	(4) Agree	(5) Strongly Agree	DK/NA	Total Responses	Mean
0	2	6	6	5	1	20	3.85

*The exercise increased my understanding about and familiarity with the capabilities and resources of other participating organizations.*

(1) Strongly Disagree	(2) Disagree	(3) Neither Agree nor Disagree	(4) Agree	(5) Strongly Agree	DK/NA	Total Responses	Mean
0	2	6	6	5	1	20	3.85

### Exercise conduct

*Given the scenario, approximately what percentage of your workforce is unavailable (wave 1)?*

Answer	Response	Percentage
0–10 percent	1	5%
11–25 percent	3	14%
26–40 percent	14	67%
41–55 percent	2	9%
Greater than 55 percent	1	5%
DK/NA	0	0%
Total	21	100%

*Given the scenario, approximately what percentage of your workforce is unavailable (wave 2)?*

Answer		Response	Percentage
0–10 percent		0	0%
11–25 percent		2	9%
26–40 percent		10	43%
41–55 percent		10	43%
Greater than 55 percent		1	4%
DK/NA		0	0%
Total		23	100%

*It is an Office of the Comptroller of the Currency regulatory requirement to report branch closures, which are typically caused by physical infrastructure failures, such as the loss of power or access to the building being restricted. In the case of a pandemic, this may be caused by a lack of employees to staff/support the location. Based on this, and given the scenario, were you forced to close any of your offices/branches due to a lack of employees to staff the location?*

Wave 1	Answer		Response	Percentage
	Yes		1	5%
	No		16	76%
	DK/NA		4	19%
	Total		21	100%
Wave 2	Answer		Response	Percentage
	Yes		4	17%
	No		14	61%
	DK/NA		5	22%
	Total		23	100%

*Given the current level of absenteeism and trading volumes, was your financial organization able to complete the clearance and settlement process for securities as you would normally (timeframes met, reports issued, etc.)?*

Wave 1	Answer		Response	Percentage
	Yes		9	43%
	No		1	5%
	DK/NA		11	52%
	Total		21	100%
Wave 2	Answer		Response	Percentage
	Yes		11	48%
	No		1	4%
	DK/NA		11	48%
	Total		23	100%

*If not, was the impact significant enough that you had to request regulatory relief?*

Wave 1	Answer		Response	Percentage
	Yes		0	0%
	No		3	14%
	DK/NA		18	86%
	Total		21	100%
Wave 2	Answer		Response	Percentage
	Yes		2	9%
	No		3	13%
	DK/NA		18	78%
	Total		23	100%

*Did you need regulatory relief to make your response/recovery strategy work?*

Wave 1	Answer		Response	Percentage
	Yes		1	5%
	No		13	62%
	DK/NA		7	33%
	Total		21	100%
Wave 2	Answer		Response	Percentage
	Yes		5	22%
	No		8	35%
	DK/NA		10	43%
	Total		23	100%