



ChicagoFIRST

Chicago Financial Industry
Resilience and Security through Teamwork

ChicagoFIRST Resilience Exercise III

After Action Report

Exercise Date: December 13, 2006

Report Date: May 2007

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I. Introduction

ChicagoFIRST was formed in July 2003 by Chicago-area financial organizations as a means to enhance the resilience of Chicago's financial community. As the regional coalition for Chicago's financial services sector, ChicagoFIRST has established relationships between Chicago's financial community and all levels of government regarding emergency management and homeland security issues.

Over the past two years, the potential for an influenza pandemic has added a critical dimension to the customary focus of business continuity and disaster recovery planning: the loss of significant human resources in contrast to the loss of physical resources (facilities, systems, equipment). ChicagoFIRST has expanded its public sector relationships to both local and State public health officials in order to better inform members' pandemic planning efforts, and with national level telecommunications experts to better understand potential strains on its systems caused by telecommuting.

On December 13, 2006, ChicagoFIRST held its third protective response/resilience exercise. The exercise, which was sponsored by the U.S. Department of the Treasury, brought together over 100 participants from Chicago financial institutions as well as the Financial and Banking Information Infrastructure Committee (FBIIC), infrastructure providers, and senior representatives from Federal, State, and municipal governments.

The objectives of the exercise were to:

- Explore the business and operational impacts of a pandemic influenza outbreak on the Chicago financial services community and ripple implications;
- Enable private-public sector leaders to test current plans and procedures in a command center environment;
- Identify communications requirements and shortfalls for large-scale and long-duration "work from home" policies; and
- Identify methods through which the public and private sectors can collaborate and share information during a pandemic.

Exercise participants considered challenges including high demand on telecommunications (potentially straining both telecommuting plans and online retail banking); transportation and fuel issues; strains on public services to address the growing public health needs while still meeting everyday emergency service requests; information technology (IT) security management; high absenteeism; and the management and oversight of employees working at home and abroad.

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These challenges tested the effectiveness and vitality of business continuity plans, including the mechanisms and procedures for information sharing between public and private sectors.

II. Document Purpose & Description

The purpose of this report is to summarize the exercise itself, to describe the pandemic planning issues highlighted in the exercise, and to suggest next steps to address them. The appendices to this report provide detailed information about the exercise structure, participants, scenario, team actions, and team conclusions.

This report is not intended to assign tasks to specific financial institutions, but rather to recommend actions that could be taken to improve current pandemic planning efforts or remedy the current shortcomings in national preparedness.

However, where next steps are addressed to ChicagoFIRST specifically, we have provided a description of how the issue is currently being addressed by the organization and, if applicable, how it will be addressed.

III. Exercise Summary

A. Structure

Exercise participants were organized into six teams and instructed to respond to simulated crises based upon their real-world roles, responsibilities, and plans.

- Teams 1 through 4 represented the financial services sector, including participants from both the financial regulators and all components of Chicago's financial services community.
- Team 5 simulated a command center team, representing entities, including ChicagoFIRST, which would coordinate directly with local government and may staff the City of Chicago's Joint Operations Center during an actual pandemic.
- Team 6 was the control team, which played the role of key entities that were not represented on the stakeholder teams, including the Treasury Department, the White House, the Department of Homeland Security (DHS), the media, and the public.

The exercise was structured so that participants could use existing crisis communication tools, such as the ChicagoFIRST message board, to simulate real-world information flows.

For further information about the exercise structure and participants, see Appendices A and B.

B. Scenario

This year's exercise focused on pandemic influenza and the potential cascading effects of such an emergency on both the public sector and the financial services industry.

The exercise progressed over three moves. In Move One the teams were presented with an initial outbreak of human-to-human avian influenza transmission abroad to wide-scale spread of the flu within U.S. borders in Move Two. This rapid spread of the flu forced participants to move quickly from the preparation stage to a full response mode. Move Three focused on recovering from the first wave, returning to normal operations, and preparing for the next wave.

For a detailed summary of scenario elements, see Appendix C.

C. Participant Actions

Because each team was made up of a combination of financial sector entity charters, responsibilities, and experience, the actions taken and decisions made by each brought great value to the plenary session briefings and to the event overall.

The exercise encouraged the development of innovative approaches to improve current pandemic planning, procedures, and programs both within financial institutions and between the public and private sectors.

For a detailed description of actions discussed or taken by the participant teams in response to scenario developments, see Appendix D.

IV. Pandemic Planning Issues & Lessons Learned

Over the past two years, pandemic planning has brought unique challenges to business continuity and disaster recovery planners throughout the financial services sector. Exercises of various forms have been conducted, lessons have been learned from them, and many of these unique challenges have been addressed.

Financial services sector entities have made progress on their plans and procedures to ensure that order and fairness are maintained in the marketplace during a pandemic crisis. There has been substantial education and information flow throughout the sector about the potential public health response, as well as significant discussions about potential regulatory relief needs.

There were six critical issues addressed repeatedly, thoroughly, and effectively throughout the ChicagoFIRST Resilience Exercise III. In this section, each is described and followed by next steps we suggest to ensure progress continues to be made.

Pandemic Planning Issue A:

Managing telecommunications during a pandemic will require prior planning, particularly with the Federal government.

Telecommuting has been identified by the Federal government as a key component of the National response to a pandemic influenza. (See: *National Strategy for Pandemic Influenza Implementation Plan*, Homeland Security Council, May 2006.) Most institutions have incorporated telecommuting into their pandemic preparedness plans, to a greater or lesser extent. However, it is unclear how much congestion may result in light of capacity conditions within the “last mile” of the telecommunications infrastructure for home users. Key financial transactions must not be unduly hampered by such congestion and mitigation options must be considered.

Lessons Learned:

1. ChicagoFIRST will work through the appropriate Federal agencies to clarify the Federal government’s authority to manage (prioritize) bandwidth usage (both legally and technologically) and the implications of such actions.

Current ChicagoFIRST Activities:

- Working through the Financial Services Sector Coordinating Council (FSSCC) and the FBIIC with the National Communications System (NCS), which is a component of DHS, on the need to prioritize Internet use during a pandemic.
- Communicated concerns to the appropriate Federal entities about the importance of evaluating the Federal government’s authority to prioritize the Internet.
- Conducted a survey of the ChicagoFIRST membership to which 100% of the respondents reported factoring telecommuting into their pandemic preparedness plans.

Future ChicagoFIRST Activities:

- Encourage the FBIIC to work with the relevant Federal agencies to evaluate the legal and policy issues involved with Internet prioritization.
- Work with NCS to model the sector’s telecommunication needs during a pandemic.

2. ChicagoFIRST will work with the telecommunications industry to stress test networks in the Chicago region so as to determine what infrastructure conditions may exist at the local level.

Current and Future ChicagoFIRST Activities:

- Continue to work with the NCS through the FSSCC in the planning of a study that will simulate a stress test of the financial communities in New York City and Chicago.
 - Participate in collecting data from ChicagoFIRST members for the NCS study, which will evaluate the ability of the telecommunications infrastructure in various Chicago zip codes to handle critical financial transactions, such as might be conducted during a pandemic.
3. ChicagoFIRST will explore any alternatives to telecommuting that are being considered domestically or internationally.

Future ChicagoFIRST Activities:

- Identify and evaluate telecommuting alternatives through the existing ChicagoFIRST Pandemic Planning Working Group and the FSSCC Infectious Disease Forum.
 - Explore alternatives with the FBIIC, DHS, and other relevant public entities.
4. Financial institutions may wish to include network security professionals in their pandemic planning processes.
 5. ChicagoFIRST will, and financial institutions should, consider taking a similar approach with other key infrastructure providers, including power, water, gas, and transportation to ensure proper planning and to identify any alternative resources.

Current and Future ChicagoFIRST Activities:

- Continue to foster relationships with other infrastructures through meetings, tabletops, and other events.

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- Maintain current contact information for these infrastructures.
- Design and implement an interdependencies exercise that will bring together the critical infrastructure within Chicago. Sponsored by DHS, the Chicagoland Critical Infrastructure Resilience Initiative provides interaction among the sectors and improves the ability of the local and Federal governments to protect Chicago's key assets.

Pandemic Planning Issue B:

There may be a substantially increased demand for cash during a pandemic.

During any crisis, the demand for cash in the form of banknotes and coin far exceeds the norm. If pandemic influenza strikes, the demand may well be both prolonged (given the likely waves of illness) and especially intense were the supply of cash to fall below that demand. Keeping ATMs stocked with cash will ensure confidence and contribute to public order. However, meeting the possible demand may require coordination and security not previously contemplated.

Lessons Learned:

1. Financial institutions could review existing guidelines, mutual aid agreements, and previous examples of institutions addressing cash shortages in a collaborative fashion.
2. Financial institutions could examine and clarify the means by which liquidity and banknote supply issues will be addressed.
3. ChicagoFIRST will coordinate with the Federal Reserve Bank of Chicago and the relevant public sector entities on possible solutions, including the establishment of security protocols for cash deliveries of all kinds and the use of non-traditional resources, such as the National Guard.

Current and Future ChicagoFIRST Activities:

- Continue to coordinate with the Federal Reserve Bank of Chicago in pursuing solutions to these problems.
- Coordinate with the City of Chicago and the State of Illinois on the need for cash to be transported to the Chicago Federal Reserve Bank, from that location to commercial bank vaults, and from those vaults to ATMs throughout the area.
- Coordinate with the City of Chicago and the State of Illinois to ensure the physical security of cash deliveries in the event of a pandemic.
- Coordinate with ChicagoFIRST members and the Federal Reserve Bank of Chicago to encourage armored car companies to develop pandemic plans that will allow them to continue their operations during a pandemic and develop protocols for delivery with the relevant public entities.

Pandemic Planning Issue C:

Mutual aid arrangements among financial institutions may alleviate some of the resulting problems of a pandemic.

The extended period during which pandemic influenza may affect the financial community may severely tax the resources of individual financial firms. Therefore, ChicagoFIRST and individual firms should consider the possible benefits of agreeing to provide mutual aid to one another under certain circumstances. Such aid could be specific, such as the willingness of Firm A to offer short-term physical space to Firm B. Alternatively, it could be more general, with Firm A offering to share certain assets, including physical space, with other ChicagoFIRST members, provided any assets requested are not needed by Firm A. Furthermore, firms could agree to share information and assistance as necessary.

Lessons Learned:

1. ChicagoFIRST will establish a mutual aid policy under which its members could seek necessary supplies or space from one another in the event of a pandemic.

Current and Future ChicagoFIRST Activities:

- Continue to share pandemic influenza plans, ideas, and concerns through the Pandemic Preparedness Working Group.
 - Develop a formal mutual aid program that will further information sharing and help ensure the resilience of the Chicago financial community by having ChicagoFIRST members support one another during and after a crisis.
2. ChicagoFIRST will continue working with the appropriate public sector agencies, including State and local public health departments, to identify triggers for pandemic response plan activation and to assist with policy formation and implementation.

Current and Future ChicagoFIRST Activities:

- Continue to coordinate and collaborate with the Chicago Department of Public Health, the Illinois Department of Public Health, and the Office of Emergency Management & Communications through the Pandemic Planning Working

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Group. Public sector triggers and planning assumptions have been shared and will continue to be shared as they are revised.

Pandemic Planning Issue D:

A pandemic must be managed so that resources and capabilities are not exhausted during the initial wave.

Experts generally agree that an influenza pandemic would likely occur in several waves. Thus, the duration of a pandemic may require a phased planning and response approach so that resources and energy are not exhausted during the initial wave of the pandemic. The nature of pandemic influenza requires that preventive and response actions not be relaxed until the full course of the pandemic has occurred, thereby allowing for a phased return to normal.

Lessons Learned:

1. Financial institutions should consider developing pandemic preparedness plans that allocate personnel and other resources according to the pandemic stages propounded by World Health Organization (WHO) and/or the U.S. Department of Health and Human Services (HHS).
2. Financial institutions may wish to designate, in advance, certain employees to document lessons learned regarding staffing, absenteeism, morale, medical issues, mortality, and the like during and in-between waves. This would better prepare firms for future waves.
3. Financial institutions could seek to determine whether their vendors will be available throughout a pandemic. Periodic “pulse checks” may be helpful.
4. Financial institutions could identify and pre-position relevant assets (e.g., fuel and IT replacement parts).
5. Financial institutions could increase their use of the Internet to communicate and conduct business with their customers. (Phishing issues will have to be addressed.)

Pandemic Planning Issue E:

During a pandemic crisis, institutions may request that the financial regulators provide temporary relief from certain guidelines, regulations and/or procedures should concerns arise pertaining to financial sector stability.

As with any crisis, a pandemic influenza may force businesses to operate under different circumstances. In certain circumstances regulators have the authority under their emergency powers to provide limited temporary relief. Examples of previous relief during crises may provide insights into the types of conditions that warrant this action and under what conditions this relief was provided.

Lesson Learned:

1. Financial institutions should consider consulting with their regulators about the types of regulatory relief that is within their authority and review previous situations of when this relief was granted.

Pandemic Planning Issue F:

Human resources strategies should be tailored to the specific concerns raised by a pandemic.

Detailed human resources (HR) strategies and plans are central to the ability of an organization to minimize the impact of a pandemic. Unlike the episodic nature of a terror attack, a pandemic would occur in waves and require longer range planning and resource deployment. As a result, pandemic plans must address a myriad of personnel issues over a long period of time, rather than a single and relatively short-term incident.

Lessons Learned:

1. Financial institutions should consider integrating HR policies with pandemic planning, given the long-term nature of the event.
2. Financial institutions may wish to develop pandemic-specific policies on all aspects of HR, including child care, sick leave, and compensation.
3. Financial institutions could incorporate HR personnel managers and executives into their pandemic planning processes.
4. ChicagoFIRST will address these HR issues in a working group.

Current and Future ChicagoFIRST Activities:

- Continue to address HR issues within the Pandemic Planning Working Group.
 - Conduct an HR workshop for the membership that will be led by a professional facilitator; and follow up on the lessons learned.
5. ChicagoFIRST will, and financial institutions could, identify any lessons learned between the pandemic waves and apply them and establish rapid assessment teams to help them better prepare for subsequent waves.

Future ChicagoFIRST Activities:

- Identify and apply lessons learned in the event of a pandemic influenza outbreak.

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6. Financial institutions should, after the pandemic is over, reward exemplary behavior on the part of employees, clients, vendors, and others.
 7. Financial institutions could consider tethering their travel policies, for both work and vacation, to the pandemic stages propounded by WHO and/or HHS.
 8. Financial institutions may wish to cross-train employees, develop succession plans, and prepare stand-alone documentation on how to perform key jobs (because knowledgeable managers may be unavailable).
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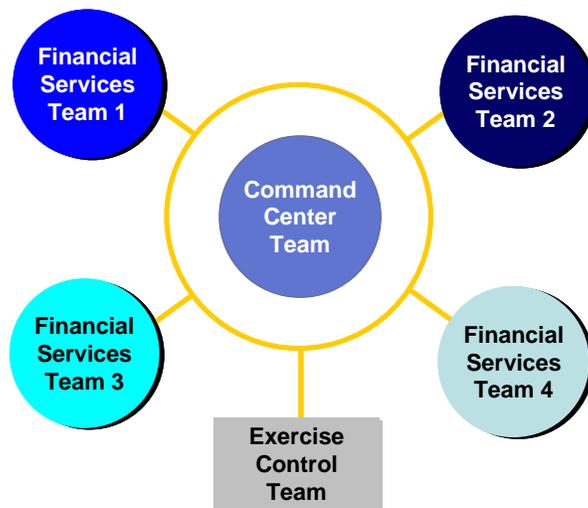
Appendices

Appendix A: Exercise Organization & Structure

Exercise participants were organized into six teams – four financial services teams, a command center team, and a control team.

- The financial services sector teams included financial institutions and financial regulators.
- The command center team included individuals who would staff the City of Chicago’s Joint Operations Center during a real pandemic influenza outbreak, including a ChicagoFIRST representative.
- The control team included representatives from the Federal government and the exercise design team, orchestrated exercise injects, and played the role of other key entities not directly represented on the stakeholders’ teams, such as the media, foreign governments, the White House and key Federal government agencies (e.g., the Treasury Department, the Department of Homeland Security and Centers for Disease Control (CDC)).

Figure 2: Simulation Teams and Team Structure



During the exercise, teams were required to respond to simulated circumstances and incidents based upon their “real-world” roles, responsibilities, and plans.

Teams were structured with a combination of organizations in order to provide varying viewpoints and response strategies. Prior to the exercise, a team leader was identified to speak for its team and lead each briefing. The teams were

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assisted by facilitators who kept team discussions on track and also ensured that briefings and other deliverables were prepared in a timely manner. A rapporteur served as the central point of contact for incoming and outgoing messages, recorded key points, and assisted in the preparation of plenary session briefings.

At the end of each move, a plenary session was held to allow representatives from each team to brief the entire group on its team's major decisions and actions. During plenary sessions, teams discussed each others' crisis response actions, pandemic planning, business continuity issues, information exchange, and roles and responsibilities. Additionally, teams explored opportunities to change their actions, refine responsibilities, and identify requirements necessary to perform more effectively.

In order to reflect true ChicagoFIRST protocols, communication tools, such as conference calls, email advisories, NC4 alerts, and the ChicagoFIRST message board were used throughout the initial two moves. Many of the conference calls were initiated by the Control team to simulate "real world," multi-party crisis management and to provide critical information to the financial services sector.

Appendix B: Exercise Participants

The ChicagoFIRST Resilience Exercise III brought together senior officials from Chicago's financial services sector, other critical infrastructure, and from Federal, State, and local government.

PRIVATE SECTOR ORGANIZATIONS

- ▶ ABN AMRO/LaSalle Bank
- ▶ Allstate
- ▶ Aon
- ▶ AT&T
- ▶ Bank of America
- ▶ BARC*first*
- ▶ Building Owners and Managers Association
- ▶ Chicago Board of Trade
- ▶ Chicago Board Options Exchange
- ▶ Chicago Mercantile Exchange
- ▶ ChicagoFIRST
- ▶ CNA
- ▶ ComEd Energy Services
- ▶ Financial Services Sector Coordinating Council
- ▶ Futures Industry Association
- ▶ GETCO
- ▶ Goldman Sachs
- ▶ Harris Bank
- ▶ InfraGuard
- ▶ Man Financial
- ▶ Mesirov Financial
- ▶ NASCUS
- ▶ National Futures Association
- ▶ NC4
- ▶ Northern Trust
- ▶ NYSE Group
- ▶ Options Clearing Corporation
- ▶ PrivateBank & Trust Co.
- ▶ UBS Investment Bank
- ▶ Washington Mutual
- ▶ William Blair & Co.

PUBLIC SECTOR ORGANIZATIONS

- ▶ American Red Cross
- ▶ City of Chicago
 - Department of Aviation
 - Department of Public Health
 - Fire Department
 - Office of Emergency Management & Communications
 - Office of the Mayor
 - Police Department
- ▶ Commodity Futures Trading Commission
- ▶ Federal Bureau of Investigation
- ▶ Federal Deposit Insurance Corporation
- ▶ Federal Home Loan Bank of Chicago
- ▶ Federal Reserve Board of Governors
- ▶ Federal Reserve Bank of Chicago
- ▶ National Credit Union Administration
- ▶ Office of the Comptroller of the Currency
- ▶ U.S. Public Health Service
- ▶ Securities & Exchange Commission
- ▶ State of Illinois
 - Department of Financial and Professional Regulation
 - State Police
- ▶ US Department of Homeland Security
 - US Secret Service
 - Federal Emergency Management Agency
- ▶ US Department of the Treasury

Appendix C: Exercise Scenario

The exercise scenario consisted of three moves. The first two moves posed the initial outbreak of human-to-human transmission overseas followed by an outbreak within the United States. The third move focused on recovering from the first wave of a wide-scale global outbreak, returning to normal operations, and preparing for the next wave. This final move offered participants the opportunity to draw conclusions based on previous discussions and identify lessons learned.

To simulate a “real world” pandemic outbreak during this exercise, reference was made to both the WHO Phases and the U.S. Federal Response Stages (see table below) to assist participants who utilize both in their internal pandemic planning.

Pandemic Influenza Alert Phases and Response Stages

WHO Phases		US Federal Government Response Stages	
INTER-PANDEMIC PERIOD			
1	Low risk of human case	0	New domestic animal outbreak in at-risk country
2	Higher risks of human cases		
PANDEMIC ALERT PERIODS			
3	No, or very limited human-to-human transmission	0	New domestic animal outbreak in at-risk country
		1	Suspected human outbreak overseas
4	Increased human-to-human transmission	2	Confirmed human outbreak overseas
5	Significant human-to-human transmission		
PANDEMIC PERIOD			
6	Pandemic phase: Increased and sustained transmission in general population	3	Widespread human outbreaks in multiple locations overseas
		4	First human cases in North America
		5	Spread throughout United States
		6	Recovery and preparation for subsequent waves

Move One: Significant human-to-human transmission of influenza abroad.

Prior to the start date of the first exercise move, the participants received background information about a mutated strain of the Avian H5N1 virus. For example, on December 26, 2006, the WHO was able to confirm reports from Thailand of a new strain of flu, mutated from the Avian H5N1, which exhibited a much higher rate of human-to-human transmission. By December 31, the WHO had raised the pandemic alert level from Phase 3 to Phase 5. The Middle East and Southeast Asia were the hardest hit with the most confirmed cases.

The first move commenced on January 7, 2007, at which point the outbreak of a new flu had already claimed nearly 2,000 victims worldwide.

- The U.S. Federal Government Response Stage designation was Stage 2, to indicate a confirmed outbreak abroad.
- Hospitals and doctors' offices in New York, Atlanta, Chicago, and Los Angeles were reporting higher than normal numbers of people seeking treatment for flu-like symptoms. The State of Illinois was experiencing an especially difficult flu season, and the current seasonal flu appeared to be highly transmissible and causing severe symptoms.
- Major retail and drug store chains reported a run on over-the-counter flu remedies and lack of availability of Tamiflu for ordinary citizens.
- The pandemic was beginning to impact the global economy, particularly in Asia, as the Chinese market took a slight downturn. The Nikkei was down 300 points with heavy trading, suggesting to some financial experts that some individual traders were acting on concerns over a potential liquidity crisis if the pandemic were to worsen.
- In preparation for the widely assumed eventual spread of the flu to the United States, companies were assessing their current work-from-home strategies and the potentially great strain on resources to protect information security, support increased demand for external access to networks, and provide for a significantly higher number of telecommuters.
- The CDC issued a health alert, and experts believed the impact in the United States to be as severe as the 1918 influenza pandemic.
- Tokyo confirmed its first cases of new flu and as many as 5,000 people in Tokyo had been hospitalized with the new flu.
- During the move, the European Union confirmed its first cases of the new flu in Germany, Poland, the United Kingdom, and other countries.
- CNN reports that doctors in Vancouver have diagnosed the first case of pandemic influenza discovered in North America. Three days later on January 11, the Vancouver General Hospital denied reports that they were treating a patient with pandemic influenza.
- The move ended with no confirmed cases of the pandemic flu in North America.

Move Two: Pandemic both in the United States and abroad.

Move Two began on February 22, 2007, with a full blown pandemic worldwide and an estimated two billion sick.

- The WHO Pandemic Alert Phase 6 was activated, and indicated the increased and sustained transmission between humans, and corresponded to the U.S. Federal Government Response Stage 5, reflecting the spread of the pandemic throughout the United States.
- In the United States, the flu spread quickly through all 50 states with an estimated 90 million sick and a mortality rate of over two percent in some areas. Teams needed to move quickly from what had been the planning stage to a clearly reactive position, forcing the activation of pandemic plans.
- The City of Chicago and surrounding suburbs suffered nearly three million confirmed cases of pandemic influenza and over 60,000 reported dead. Doctors had difficulty determining whether patients were suffering from the seasonal flu or pandemic influenza, and struggled to treat all of the pandemic cases due to the large percentage of patients requiring advanced life support.
- Cities around the country closed schools, cancelled public gatherings, and took other precautionary measures to stem the spread of the virus. Eventually, Chicago followed suit.
- High absentee rates and concerns over liquidity put further strains on the financial services, the telecommunications industry, public transportation, and other public services.
- A spike in Internet usage caused delays with online banking. The telecommunications industry was inundated with telephone and Internet usage vastly exceeding normal levels due to increased numbers of employees and their family members, at home. A statement was issued asking all non-essential use be curtailed to keep lines open for emergency purposes.
- Liquidity concerns became a critical problem and teams were informed of escalating demand and ensuing tension over inadequate supplies at ATMs. Additionally, access to online accounts was at times hindered by an overburdened system as citizens tried to conduct more business outside of public areas.

Move Three: Recover from First Wave, Return to Normal, Prepare for Next Wave.

During Move Three, teams were asked to consider what they would do to recover from the first wave and how they would bring their operations back to normal. They also considered what they may need to do and the lessons they learned from the first wave to prepare for future waves. No injects were used during this move.

Appendix D: Team Actions

Move One Response: In light of the developing pandemic, teams began by examining their priorities and determining which factors would trigger the activation of their pandemic response plans. Since the pandemic had not yet reached the United States, actions were limited primarily to preparation and assessment of the situation, and the potential actions required for employees, clients, and operations.

Issues considered during this move included:

- Evacuation of employees in areas where the pandemic had already emerged;
- Tracking employees and absenteeism rates;
- Efficacy of existing crisis and pandemic response plans;
- Whether to fully implement business continuity plans (including activation of alternate sites);
- Impacts on vendors and clients;
- Limitations of work-at-home policies as a cure-all and how best to develop additional coping methods;
- Application of social distancing;
- The need for reliable sources of information for the business; and
- The need for the financial services to serve as a reliable source of information for employees, vendors, and clients.

Teams also became increasingly aware of the importance of accurate and timely information sharing – both to obtain it from public sector officials and their personnel and to disseminate it to employees and clients.

Move Two Response: In Move Two, teams were challenged to address the impact of a full-blown pandemic, moving swiftly from the planning stages exhibited in Move One to implementation of pandemic plans. A key question was how the financial services may respond to increased demands for cash and the tensions sparked by those concerns. Additional questions arose over the distribution of personal protective equipment (PPE) and the prioritization of vaccine distribution.

The teams also dealt with transportation shortages, provision of grief counseling, school closings and child care needs, high absenteeism, and deaths of employees, all of which would necessitate cross-training and employing temporary employees.

Communications with employees, clients, vendors, and the chain of command remained critical, including communication with employees both to reassure them and to provide them with advice and instructions concerning the pandemic.

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Communications with employees also allowed teams to better track the conditions of their employees and the ability to maintain operations to the greatest extent possible. During this move, the command center focused on communicating their public message of reassurance and health guidelines, as well as coordinating with local, State, and Federal assets.

The figure below summarizes the more significant actions taken by participants in response to Moves One and Two.

MOVE ONE MAJOR TEAM ACTIONS

- ▶ **Command Center**
 - Monitored situation globally and locally
 - Accelerated planning to ensure the City of Chicago has necessary resources and staff
 - Ensured critical infrastructure plans of non-governmental entities
 - Established contingency centers (vaccination centers, etc.)
 - Began public information campaign to keep people calm and informed
- ▶ **Financial Team 1**
 - Reviewed organizational emergency plans
 - Tracked employees, particularly key employees and those overseas
 - Reviewed off-shored and outsourced relationships
 - Activated additional call centers to handle increased concern from clients
 - Maintained sense of normality to greatest extent possible
 - Enforced travel restrictions
 - Client interaction as necessary to reassure
 - Contacted key vendors and suppliers
- ▶ **Financial Team 2**
 - Prepared to distribute PPE to impacted sites
 - Restricted overseas travel for all employees
 - Accelerated reminders and dissemination of pandemic plans
 - Accelerated calls to international entities to get best practices
 - Crafted media releases by individual organizations
 - Pushed out info on external websites
 - Assured clients that plans were in place and ready to activate
 - Monitored implications to client and market base and assessed vendor capacity
- ▶ **Financial Team 3**
 - Notified and staged management crises teams
 - Notified and returned employees from abroad
 - Communicated with employees, business partners, clients to update status and inform/determine potential impact of pandemic
 - Exercised regional response strategies
- ▶ **Financial Team 4**
 - Activated internal plans, collected absentee data
 - Enacted basic social distancing; reduced face to face meetings
 - Monitored worldwide activities

MOVE TWO MAJOR TEAM ACTIONS

- ▶ **Command Center**
 - Communicated with public
 - Maintained basic critical infrastructure services to highest level possible and consistent disease control message
 - Enforced curfew after ice storm
 - Requested assistance from local, State, and Federal assets
 - Ensured effective resource utilization
 - Maintained essential commodity supply chains
- ▶ **Financial Team 1**
 - Communicated periodic “state of the union”
 - Sought assistance for regulatory relief and/or forbearance
 - Remained a reliable source of factual information to employees, clients, etc.
 - Implemented succession planning/retraining and addressed employee assistance issues
 - Explored load balancing and necessity for shift work and temporary workers
- ▶ **Financial Team 2**
 - Suspended open-outcry and shift to electronic trading by Chicago Mercantile Exchange and Chicago Board of Trade
 - Distributed PPE to all employees
 - Invoked work-from-home and back up sites
 - Prioritized fuel usage, vaccine disbursement, provision for seniors
 - Regular conference calls to survey activity in brokerage houses
 - Assess staff health status and shift workers to highest critical function; included incentives
 - Conducted ongoing assessment/polling of client needs
- ▶ **Financial Team 3**
 - Encouraged use of debit, check, and credit cards
 - Staffed carriers to deliver cash to ATMs with additional security
 - Suspended floor trading and implemented electronic trading
 - Discussed regulations on communications
 - Encouraged employees to work from home and those who have recovered to return to work
- ▶ **Financial Team 4**
 - Triage: continually changed employee mix
 - Assessed the situation and developed plan for return to normal operations
 - Prepared for the second wave
 - Communicated human resources policies to