

Pandemic Preparedness Planning
Systemic Institutional Review**Background**

On November 1, 2005, the White House issued a National Strategy for Pandemic Influenza. Shortly thereafter, banking institutions, especially those required to comply with the measures outlined in the *Interagency Paper on Sound Practices to Strengthen the Resilience of the U. S. Financial System*¹, began to make preparations to mitigate risks associated with an avian-flu pandemic and high absentee rates over prolonged periods. Through continuous monitoring work, supervisors were kept informed on the progress of pandemic preparedness efforts.

In March 2007, the GAO² issued a report entitled “*Financial Markets Preparedness- Significant Progress Has Been Made, but Pandemic Planning and Other Challenges Remain.*” In this report, it was noted that the securities and banking regulators had not established formal pandemic preparedness expectations or set dates for institutions to complete formal plans. In the third quarter of 2007, the Federal Reserve issued formal expectations to systemic institutions, drawing from the GAO report and regulatory guidance³, with a year-end 2007 date for compliance.

Abstract/Summary

In January 2008, the Federal Reserve Bank of New York began a series of reviews in order to assess the progress made by the top fifteen banking organizations in the country. The review objectives were to provide a broad perspective of the state of pandemic preparedness at systemic institutions, identify trends within the pandemic preparedness planning process, and to provide peer benchmarking attributes to the participating institutions. Information on six key performance indicators⁴ were collected, comprised of key attributes questions for each KPI. A summary of the original 129 questions are highlighted and consolidated in the attached Pandemic Preparedness Planning Benchmarking Attributes document (Appendix A).

This white paper highlights the practices of firms as well as conclusions and themes as they relate to the current state of pandemic preparedness planning at systemic banking organizations.

Overall, considerable progress has been made in planning for an avian flu pandemic or other prolonged contingency event, however, some issues remain that are being addressed by financial institutions as well as organizations that comprise our national infrastructure, including utilities, telecommunications and transportation.

¹ Also called the “sound practices paper” issued April 2003- established resiliency guidelines for core clearing and settlement organizations and firms that play a significant role in critical financial markets to mitigate the systemic effects of a wide scale disruption to the US financial sector.

² Government Accountability Office

³ Regulatory guidance issued on December 12, 2007 as SR 07-18 FFIEC Guidance on Pandemic Planning

⁴ Key Performance Indicators for a pandemic preparedness program include: an oversight program to ensure ongoing review and updates; a preventative program; a documented strategy; a comprehensive framework of facilities, systems, or procedures; a testing program; and a training and awareness program.



Key Performance Indicators

Oversight

Board of Directors

Oversight by the Board of Directors sets the tone for the development, implementation, and ongoing review and improvement of a preparedness program. All the firms reviewed evidenced active involvement by the Board or designated Board committee. Board related materials indicate that the firms understand pandemic related risks and are ensuring that management continues to make adequate preparations to mitigate these risks. The corporate preparedness strategy and framework was reviewed and approved by most of the Boards with the remainder approved by an authorized senior management committee. Additionally, all firms demonstrated that the Board is periodically updated on the status of the preparedness program. All firms have delivered Board presentations at least once; most have presented an update two or more times in the past twenty four months. Most board related pandemic preparedness program updates were contained within the business continuity program reports.

Pandemic Task Force

Task forces or specialized teams were identified for all firms. Some teams were specifically identified for the pandemic preparedness planning process while others were more loosely defined within the existing business continuity and resiliency programs. Most Task Forces or Steering Committees consisted of representatives from the business lines and corporate functions, including Internal Audit. A wide range of corporate and business line functions contributed to the overall effort and corporate functions such as internal audit, legal, human resources and in some cases medical advisors were especially important participants due to the anticipated high absentee levels over prolonged periods. Business lines included continuity program coordinators and line managers. Task force responsibilities were focused and well defined, and provided effective leadership over the development of a strong pandemic preparedness framework and the implementation of a corporate strategy. The task force was often used as a sounding board for planning ideas and is a forum for knowledge sharing and vetting pandemic related information.

Pandemic Officer

Executive sponsorship was viewed as a crucial element in preparedness planning initiatives. Most of the firms appointed a pandemic officer to coordinate the corporate preparedness program and the remaining firms, those who did not designate a pandemic officer, wrapped the program around the existing business continuity program with a designated group leader for the program. Over two-thirds of the pandemic officers have over four years of pandemic related experience which includes SARS (2003)⁵ and are contributing members of industry pandemic planning related working groups and forums. Typical pandemic preparedness reporting included pre-defined metrics, project progress and status reports, plan testing results, and gap analyses.

Preventative Program

Most firms had a robust and well defined Business Continuity Planning (“BCP”) programs in place and by leveraging the existing BCP framework and expertise, firms were able to shorten the

⁵ Severe Acute Respiratory Syndrome-SARS was first reported in Asia in February 2003. Over the next few months, the illness spread to more than two dozen countries in North America, South America, Europe, and Asia before the SARS global outbreak of 2003 was contained.



preparedness planning process. The synergies between preparedness planning and the existing BCP enriched and strengthened the overall resiliency program especially in the areas of:

- Identification of critical functions- Critical business activities for banking firms to operate as well as those identified through the “sound practices paper” have been clearly identified and mapped within BCP plans.
- Identification of critical vendors and suppliers-Vendors essential to critical businesses have been identified and mapped to the appropriate BCPs.
- Sustainability of critical functions throughout a prolonged event-Secondary and tertiary individuals or functional equivalents have been identified and mapped to the critical systems’ BCPs to support prolonged absenteeism. This includes Senior Management’s identification of successors.

Crisis Management

- All firms indicated the importance of Crisis Management and the ongoing evolution of the crisis management process as a result of pandemic preparedness planning and testing.
- Crisis management and notification plans were well tested during the UK (2006)⁶ and US (2007)⁷ market wide exercises and most firms realized gaps in their programs and designed initiatives to support enhanced crisis management and notification testing.
- The market wide exercises pointed out that communication between firms and their employees is crucial to the success of their resiliency in the event of prolonged absenteeism. Crisis management and notification systems in place needed to support multi layered communications along with access to multiple communication venues and devices.
- Firms are evaluating improvements in their internal communication and notification systems, networks and capabilities. New systems, additional modules, and improved software have matured to support these now critical elements of notification systems for crisis management.

Documented Strategy

Firms have defined a corporate pandemic preparedness strategy that provides direction and focus for maintaining critical business activities. The review indicated that firms have mapped their pandemic planning efforts and activities to be consistent with the effects of a particular stage of a pandemic outbreak. Corporate functions and business line management teams have designed plans that are consistent with the corporate strategy and accepted industry practices. Return to work strategies from an initial pandemic wave has been included in HR policies and general return to work policies are included in the BCPs. Business strategies align recovery activities with corporate strategies that in turn align with the WHO alert phases and other government alert levels.

Comprehensive Framework

All of the firms have comprehensive crisis management and business continuity frameworks in place and are leveraging their geographically diverse operational capabilities and expertise to sustain critical business operations throughout a prolonged disruption. All firms agreed that at this time, critical functions must be operated at a site on the firm’s network backbone. Alternate

⁶ Tripartite UK Financial Sector: Market Wide Pandemic Exercise 2006- six week London based pandemic exercise held in late 2006.

⁷ The FBIIC/FSSCC Pandemic Flu Exercise of 2007-three week US based exercise simulating a severe global pandemic flu commencing September 24, 2007.



business sites, social distancing, re-deployment of staff, enhanced cleaning, and telecommuting have been included in most pandemic preparedness plans. Remote access options, for the most part, are being used to support the non-critical aspects of essential business functions and support services. The identification of critical operations along with the designation and training of primary and alternate staff for essential leadership and functional positions was noted in many of the business line preparedness plans. All firms have begun working with their critical vendors and suppliers to establish that those vendors have developed resiliency plans to ensure that services and supplies are available throughout a disruption.

Testing

Due to the interdependencies and complexities of pandemic plans and testing scenarios, table top testing emerged as the preferred approach at all of the firms. During market wide tests, firms realized the benefits of testing their significant business plans with other participants as well as federal, state and local governments; and most firms indicated that they would participate again⁸. All the firms indicated that exercise lessons learned gaps were incorporated into the appropriate sections of the BCPs. Pandemic preparedness testing has been folded into the BCP program and the Crisis Management program testing. Aspects of both are often tested at the same time.

Training & Awareness

Pandemic training and awareness programs were evident at all the firms. Most of the firms managed their training and awareness programs from the corporate perspective through Human Resources and corporate medical advisory functions. Some firm's business lines have enhanced the corporate awareness programs based on specific business needs. The promotion of good health and hygiene practices constituted the major portion of awareness programs and this was evident at all the firms. The placing of hand cleaners in or near restrooms, break rooms, and cafeterias as well as posters on proper hand washing, coughing and sneezing techniques were common among the firms. Some firms kept distributed materials to a minimum in an effort to minimize any employee alarm. These firms indicated that more specific pandemic related material would be distributed as an action triggered at WHO phase four⁹. All the firms have links to both internal and external websites where pandemic information is available to their employees.

Recurring Themes

There were several "themes" that surfaced as the data across the firms was collected and analyzed.¹⁰ The firms tended to group themes around key areas such as; Internal Audit, Remote Access, Absenteeism, and BCP Program Enhancements. Additionally, there were some themes that did not fit into these specific areas that have been grouped into a general category.

⁸ Most have indicated that they will participate in the Singapore Pandemic Preparedness exercise in November 2008.

⁹ World Health Organization-has developed six pandemic infection phases and is presently set at Phase 3 (phase 4 is designated as the first phase of serious concern of human to human transmission)

¹⁰ It is important to note however, that such themes do not necessarily constitute a "sound practice" in the subject area; they simply reflect common approaches at a point in time.



Internal Audit

Although most of the firms recognized that audit would be impacted by a pandemic, a formal plan such as reducing or curtailing audit activities and providing audit personnel to the business lines either as control observers or to perform operational duties have not been documented¹¹

- Internal Audit departments that performed preparedness planning audits have centered their reviews on the preparedness program.
- Internal Audit was involved with preparedness planning processes in an advisory role and as a member of the pandemic task force in most firms.
- The majority of Internal Audit's pandemic preparedness risk assessment and review of planning processes are now being integrated into the BCP components within the line of business audits.
- While management valued Internal Audit's business line and BCP knowledge, expertise, input and comments throughout the preparedness planning process, the majority of the institutions' audit functions do not have a formal preparedness plan.

Remote Access

Remote access or telecommuting was initially considered the predominant business continuity solution for firms during a prolonged disruption such as a pandemic event, but on closer inspection, turned out not to be the panacea of solutions for critical functions. Also, exercising a remote access option proved to be more complex than originally considered as concurrent connection capacity, access to sensitive applications and information, and overall security were areas of concern.

- Most firms determined that employees that perform critical functions would be required to work from institution managed sites.
- Many firms are re-evaluating their remote access options and considering who, what, where, and how remote access will be of the greatest value especially during a crisis.
- Remote access has changed how some firms plan for business disruptions as telecommuting has increasingly become the normal operating model for a number of non-critical and support functions.
- Many firms are working to increase and enhance their remote access capabilities and capacity.

Absenteeism

The development of a corporate HR strategy for absenteeism and other labor related issues was noted at a majority of the firms. Absenteeism policies have been reviewed and clarified to consider pandemic related situations such as the "worried well", caregivers, and the transportation abandoned, but firms have refrained from distributing these plans due to the sensitivity and legal issues surrounding absenteeism. Policies around returning to work were also included in the HR strategy around absenteeism.

- Most firms have enhanced their human resource policies surrounding absenteeism in preparation for a pandemic event and high levels of absenteeism.
- Some firms have retained consultants and outside counsel with policy expertise to assist in the development of absentee policies.
- Absenteeism policies have been reviewed and vetted by legal departments and senior management, and some firms are training business line managers on how to handle absenteeism with their staff.
- Firms included "return to work" policies, procedures, and training within their absenteeism framework.

¹¹ The Institute of Internal Auditors (IIA) provides guidance (*IIA Practice Advisory 1000.C 1-2 Additional Considerations for Formal Consulting Engagements*) for internal audit in emergency situations, but also recommends that audit obtain approval for any departure from normal auditing activities.



BCP Program Enhancements

Firms are taking advantage of their global span of operations to better ensure business continuity throughout any disruption. Firms realize that the geographic dispersion of knowledgeable staff and facilities has increased the probability of mitigating any disruption.

- Most of the firms have incorporated important elements of pandemic preparedness planning into their business continuity and crisis management programs. These include identifying and managing critical functions and vendors, succession planning and geographic diversity of facilities and skills.
- Identification of primary critical vendors along with secondary and tertiary vendors is now listed in business continuity plans.
- The development of clear succession plans that designate, train and test primary and secondary backups for critical leadership and functional positions is becoming the industry norm.
- Most firms are developing skill level data bases for employees to enhance their ability to staff critical business functions.

General

Firms indicated that plan shortcomings uncovered during the market wide exercises did have overall business resiliency implications. These include the need for frontline management to better understand human resource policies, the need for trained primary and secondary backup personnel for critical functions and the extent of human and technology resources available during an emergency.

- Many firms expressed concerns over disruptions in trading operations and are working with regulators to clarify off-site trading rules. While not including regulatory relief in their preparedness plans, firms anticipate that some form of regulatory relief will become available such as enhanced cash services and extended settlement hours.
- All the firms believe that the pandemic preparedness planning process has enriched the overall resiliency risk management program.
- All firms have assessed the need for anti-virals and have developed options to either stockpile or order supplies on trigger based plans.

Leading Practices

During the course of this review some practices were steadfastly embraced by the firms and considered to be “leading practices” within pandemic preparedness planning.

- Firms have embraced multi-dimensional frameworks to support sustainable crisis management.
- Firms are requiring business units and shared services to identify secondary and tertiary vendors whenever and wherever possible.
- Firms recognize and continue to enhance crisis management communication and notification systems.
- Crisis management has delegated some of the decision making responsibilities closer to the business lines once the initial impact of the disruption is absorbed. Evolved crisis management has penetrated deeper into the organization.
- Firms have begun to collect and inventory employee skill set information for later use and for multiple contingency scenarios.
- Firms are relying on a combination of recovery sites and internal networks in various institutional facilities to ensure availability of people, technology, and critical functions.



Conclusion:

All firms reviewed are well along in preparedness planning efforts. The firms have met the primary objectives of planning for and thinking through events that include prolonged and heightened absenteeism. Firms have started to fold pandemic preparedness testing into their normal testing programs, considering a pandemic event as an additional scenario test along with other types of contingencies. Internal Audit has started to define their specific role during a pandemic event and have begun to review pandemic plans through BCP testing within the respective business lines. Ultimately, the overall resiliency risk management, crisis management and BCP programs have been enriched and strengthened by the pandemic preparedness process, especially in the areas of identification of critical functions, identification and management of critical vendors, succession planning, qualification of remote access options mapped to BCPs and the integration of BCP and Crisis Management teams working closer together to enhance communication and notification systems.

FEDERAL RESERVE BANK *of* NEW YORK

Pandemic Preparedness Planning
Systemic Institutional Review

APPENDIX A

PANDEMIC PREPAREDNESS PLANNING BENCHMARKING ATTRIBUTES

Pandemic Preparedness Planning Benchmarking Attributes

Systemic Institutions (15 participants)
Appendix A

Oversight	
<i>A sound Pandemic Preparedness program incorporates oversight that ensures ongoing review and updates to the pandemic plan, so that policies, standards and procedures include up-to-date, relevant information provided by governmental, industry or internal sources.</i>	Pandemic Preparedness Program is in place and appropriately scaled - 11 Not appropriately scaled - 4 Not in place - 0
Has the Board of Directors or committee thereof provided the appropriate oversight of the firm's pandemic preparedness program?	Yes-All No - 0
What types of pandemic information does the Board receive?	Periodic Updates-6 Presentations -8 Status-1
How often has pandemic preparedness been on the Board agenda in the past 24 months?	Once-4 Twice-4 Three or More-7
What questions or concerns have the Board directed to management and what if any additional information have they requested?	Budget/Finance-1 BCP Program-6 Training-3 Other-1 All the Above-4
Has the firm established a task force (TF) or steering committee (SC) to develop approaches to address the potential risk posed by a pandemic event? Does it include executive representatives from all lines of business? <i>(This group should include representation from business line and corporate support management including Legal, Medical, HR and Audit and may be part of overall BCP efforts)</i>	Yes-All
How often does the TF or SC meet?	Bi-Weekly-1 Monthly-8 Quarterly-1 Other-5
What kind of reports does the task force receive?	LoB Progress-7 Other-8
Has a senior level pandemic officer been appointed? <i>(This could be a member of the business continuity management team)</i>	Yes-11 No-4

Pandemic Preparedness Planning Benchmarking Attributes

Systemic Institutions (15 participants)

Appendix A

Oversight	
Is the pandemic preparedness budget process centralized? <i>(e.g., centralized at Corporate level or managed at LOB level)</i>	Yes-11 No-4
Has management addressed reported pandemic related audit issues in a timely manner?	Yes-10 No-5
Has the firm considered specific pandemic related insurance coverage? <i>(e.g., business insurance policies necessary to mitigate country-specific risks and effects of a pandemic) While no specific pandemic-related insurance is available at this time, all firms evaluated existing insurance coverage for potential gaps.</i>	Yes-All
Has the firm developed or established specific liquidity management arrangements in the event of a severe pandemic event? <i>(some firms already have existing organizational liquidity management programs in place for multiple scenarios)</i>	Yes-8 No-7
What is the firm expecting of its local Federal Reserve Bank regarding services and products in the event of a pandemic or prolonged contingency event?	Extended FedWire Hours-6 Liquidity Payment Mgt-3 Enhanced Cash Services-1 Other-5
Preventative Program	
<i>A sound preventive program should be designed to reduce the likelihood that a firm's operations will be significantly affected by a pandemic event, including: monitoring of potential outbreaks, communicating and coordinating with critical service providers and suppliers, and providing appropriate hygiene training and tools to employees.</i>	Pandemic Preparedness Program is in place and appropriately scaled-12 Not appropriately scaled-3 Not in place-0
Does the corporate plan address the monitoring of alert systems that provide information and announcements regarding the threat and progression of a pandemic event?	Yes-14 No-1
How does the firm stay current on the WHO and government alert levels? <i>(e.g., http://www.who.int/en/ and www.pandemicflu.gov)</i>	Regular Monitoring-11 Automated Alerts-4

Pandemic Preparedness Planning Benchmarking Attributes

Systemic Institutions (15 participants)
Appendix A

Preventative Program	
Is the firm's pandemic preparedness strategy/escalation plan/etc. fully documented and available so that alternate staff can direct activities if primary workers are sick and unable to support those still coming to work?	Yes-12 No-3
Is the firm working with local/state/federal law enforcement and medical personnel to ensure there will be a coordinated approach?	Yes-All No-0
What are some of the major organizations, forums, working groups, etc. that the firm participates in? (SIFMA, WHO, FBIIC, FSSCC, FFIEC, other)	SIFMA-2 WHO-2 More than One-4 All the Above-7
Has the firm reviewed and incorporated national and local governments' policies and has the firm recognized the potential impact that these policies may have on business operations and emergency plans?	Yes-All No-0
Does the pandemic preparedness plan address communication and coordination with employees and the following outside parties regarding pandemic issues: critical service providers, core payment and settlement organizations, key financial correspondents, customers, media representatives, local, federal and state agencies, and regulators?	Yes-All No-0
Will the overall corporate plan or specific business line plan address customer awareness by using printed brochures and newsletters?	Corporate Plans-11 Business Line Plans-0 Both-1 Neither-3
Will the overall corporate plan or specific business line plan address customer awareness by using web page articles and tips?	Corporate Plans-9 Business Line Plans-0 Both-3 Neither-3
Does the overall corporate plan or specific business line plan address health & hygiene issues?	Corporate Plans-11 Business Line Plans-0 Both-4 Neither-0

Pandemic Preparedness Planning Benchmarking Attributes

Systemic Institutions (15 participants)
Appendix A

Preventative Program	
Does the overall corporate plan or specific business line plan address anti-viral stockpiling?	Corporate Plans-13 Business Line Plans-0 Both-2 Neither-0
Does the overall corporate plan or specific business line plan address extensive facility cleaning?	Corporate Plans-12 Business Line Plans-0 Both-2 Neither-1
Does the pandemic preparedness testing and enhancement program include participation in local, regional, or national testing exercises?	Yes-All No-0
Is requested regulator forbearance the result of the firm's business impact analysis or internal tabletop exercises?	Industry Influence(SIFMA)-9 BIA-1 Other-5
Documented Strategy	
<i>A sound documented strategy should be in place that provides for scaling the firm's pandemic efforts so they are consistent with the effects of a particular stage of a pandemic outbreak, such as first cases of humans contracting the disease overseas, first cases within the United States, and first cases within the organization itself. The strategy also will need to address actions to recover from a pandemic wave and preparations for any following wave(s).</i>	Pandemic Preparedness Program is in place and appropriately scaled-14 Not appropriately scaled-0 No program in place-1
Is there a detailed corporate plan (trigger guidance) that outlines the firm's response when the WHO stage is escalated to phase 4? (Spread from human to human)	Yes-14 No-1

Pandemic Preparedness Planning Benchmarking Attributes

Systemic Institutions (15 participants)

Appendix A

Documented Strategy	
Have additional pandemic contingency measures been taken, above existing BCP plans, such as the diversity of telecommunication carriers and alternate contingency site providers? <i>(several firms already have secondary and tertiary contingency sites established)</i>	Yes-10 No-5
Does the business impact assessment and business line analysis take into account pandemic event risks?	Yes-9 No-6
Does the overall corporate and specific business line plans address communications?	Corporate Plans-6 Business Line Plans-0 Both-9 Neither-0
Does the overall corporate and specific business line plans address social distancing – split teams, minimum contact, shift staggering, minimize meetings and use of teleconferencing/videoconferencing?	Corporate Plans-7 Business Line Plans-0 Both-8 Neither-0
Does the overall corporate and specific business line plans address legal issues?	Corporate Plans-10 Business Line Plans-0 Both-4 Neither-1
Does the overall corporate and specific business line plans address the OSHA General Duty Clause?	Corporate Plans-12 Business Line Plans-0 Both-2 Neither-1
Does the overall corporate and specific business line plans address Workman’s Compensation plans and labor contracts?	Corporate Plans-10 Business Line Plans-0 Both-1 Neither-2
Does the overall corporate and specific business line plans address a legal strategy and action plan and human resource policies (including sick leave and premature return)?	Corporate Plans-13 Business Line Plans-0 Both-1 Neither-1

Pandemic Preparedness Planning Benchmarking Attributes

Systemic Institutions (15 participants)

Appendix A

Documented Strategy	
Does the overall corporate and specific business line plans address remote access working arrangements?	Corporate Plans-5 Business Line Plans-3 Both-7 Neither-0
Does the overall corporate and specific business line plans address key person dependencies?	Corporate Plans-7 Business Line Plans-3 Both-5 Neither-0
Does the overall corporate and specific business line plans address key job or function cross training, and designated secondary and tertiary backup training?	Corporate Plans-4 Business Line Plans-3 Both-8 Neither-0
Does the overall corporate and specific business line plans address designated and out of region backup?	Corporate Plans-6 Business Line Plans-1 Both- 6 Neither-2
Did the firm make modifications to normal compensation and absenteeism guidelines at the corporate or business line plan level?	Corporate Plans-13 Business Line Plans-0 Both-1 Neither-1
Does the overall corporate and specific business line plans address travel safety measures and restrictions-before, during, after traveling?	Corporate Plans-13 Business Line Plans-0 Both-2 Neither-0
Have any audits been performed on the firms pandemic preparedness planning and testing program?	Yes-11 No-4
Have audit reviews resulted from a comprehensive risk assessment of pandemic risk?	Yes-4 No-11
Is there a pandemic plan for the internal audit function? (e.g, suspend audits, redeploy resources, etc.)	Yes-6 No-9
Does the overall corporate and specific business line plans address the assessment of critical and essential vendors, shared services, and off shoring/outsourcing relationships?	Corporate Plans-3 Business Line Plans-2 Both-10 Neither-0

Pandemic Preparedness Planning Benchmarking Attributes

Systemic Institutions (15 participants)

Appendix A

Comprehensive Framework	
<i>Firms should have a comprehensive framework of facilities, systems, or procedures that provide the organization the capability to continue its critical operations in the event that large numbers of the firm's staff are unavailable for prolonged periods. Such procedures could include social distancing to minimize staff contact, telecommuting, or conducting operations from alternative sites. Consideration should be given to possible actions by public health and other government authorities that may affect critical business functions of a financial firm.</i>	Pandemic Preparedness Program is in place and appropriately scaled-All Not appropriately scaled-0 Not in place-0
Has the firm analyzed internal and external communication links including the "last mile" issue?	Yes-8 No-7
Has the firm analyzed their "work from home" and "work from an alternate location" data communications networks to determine if they will be able to handle the work load over those networks?	Yes-All No-0
Has the firm conducted a Zip code analysis of employees that will work from home or an alternate location?	Yes-5 No-10
Have the firm's support functions been staffed to handle all of the people who will be connecting to the firm from a remote location such as IT support, especially for critical business lines and processes?	Yes-13 No-2
Have the firm's support functions been staffed to handle on-line banking and mobile banking support?	Yes-4 No-11
Are there plans in place for shutting down, using alternate shifts or reducing the hours of operation for select business functions (non-critical), and reassigning available staff for mission critical business activities?	Yes-All No-0
Has each line of business developed a pandemic preparedness plan or supplement to address home and alternate facility arrangements?	Corporate Plans-4 Business Line Plans-2 Both-9 Neither-0
Has each line of business developed a pandemic preparedness plan or supplement to address their internal controls for critical business functions?	Corporate Plans-2 Business Line Plans-3 Both-7 Neither-3

Pandemic Preparedness Planning Benchmarking Attributes

Systemic Institutions (15 participants)

Appendix A

Comprehensive Framework	
Has each line of business developed a pandemic preparedness plan or supplement to address information security?	Corporate Plans-7 Business Line Plans-1 Both-6 Neither-1
Has each line of business developed a pandemic preparedness plan or supplement to address reduced or alternative business hours?	Corporate Plans-5 Business Line Plans-1 Both-8 Neither-1
Has each line of business developed a pandemic preparedness plan or supplement to address call center operations?	Corporate Plans-3 Business Line Plans-5 Both-2 Neither-5
Has each line of business developed a pandemic preparedness plan or supplement to address network/host capacity?	Corporate Plans-7 Business Line Plans-3 Both-2 Neither-3
Do the business line pandemic preparedness programs address the assignment of responsibility for pandemic risk assessment, planning, preparation, testing, responding and recovering?	Yes-10 No-5
Has each line of business developed a pandemic preparedness plan supplement/attachment to their BCP/DR plan?	Yes-8 No-7
Does the corporate plan incorporate management's analysis of the impact on operations if essential functions or services provided by outside parties are disrupted during a pandemic event?	Yes-10 No-5

Pandemic Preparedness Planning Benchmarking Attributes

Systemic Institutions (15 participants)
Appendix A

Testing Program	
<i>A sound testing program is recommended in order to better ensure that the firm's pandemic planning practices and capabilities are effective and will allow critical operations to continue. The program should include provisions to improve the program as necessary.</i>	Pandemic Preparedness Program is in place and appropriately scaled-All Not appropriately scaled-0 Not in place-0
Have the significant business lines successfully tested their preparedness plans and provided feedback?	Yes-11 No-4
Does the pandemic preparedness testing and enhancement plan include Stress testing on-line banking, telephone banking, ATMs and call centers capabilities to handle increased customer volumes?	Yes-6 No-9
Does the pandemic preparedness testing and enhancement plan ensure that interdependent function plans are tested simultaneously?	Yes-10 No-5
Does the pandemic preparedness testing and enhancement plan ensure that telecommuting to simulate and test remote access (connectivity & ability to run critical applications) is done periodically?	Yes-14 No-1
Does the pandemic preparedness testing and enhancement plan ensure that table top exercises have been done?	Yes-All No-0
Does the testing program support tracking and follow-up of corrective actions and plan enhancements resulting from lessons learned re: participation in exercises or audit reviews?	Yes-All No-0
Have key personnel demonstrated the ability to use the pandemic specific contingency approaches? <i>(Have staff been able to perform their business processes from home or an alternate location such as running critical applications, using videoconferencing facilities, and using a GETS card for voice communications?)</i>	Yes-13 No-2
Does audit observe pandemic plan testing or exercises? <i>(in many cases, pandemic specific testing will be part of overall BCP testing)</i>	Yes-11 No-4

Pandemic Preparedness Planning Benchmarking Attributes

Systemic Institutions (15 participants)

Appendix A

Training and Awareness Program	
<p><i>A sound preventive program should be designed to reduce the likelihood that a firm's operations will be significantly affected by a pandemic event, including a training and awareness program.</i></p>	<p>Pandemic Preparedness Program is in place and appropriately scaled-12 Not appropriately scaled-3 Not in place-0</p>
<p>Does the audit program and procedures provide comprehensive coverage of pandemic risk including employee awareness training?</p>	<p>Yes-8 No-7</p>
<p>Does the overall corporate plan or specific business line plan address a pandemic training and awareness program?</p>	<p>Corporate Plans-10 Business Line Plans-0 Both-5 Neither-0</p>
<p>Does the overall corporate and specific business line plans address customer interaction and awareness?</p>	<p>Corporate Plans-6 Business Line Plans-1 Both-8 Neither-0</p>