

NEW JERSEY BUSINESS FORCE
Business Executives for National Security



Private Sector Pandemic Flu Tabletop Exercise Report

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The New Jersey Business Force is a non-profit, non-partisan consortium of companies and institutions dedicated to improving Homeland Security through effective Public-Private partnerships

TABLE OF CONTENTS

Background2

Exercise Assumptions.....2

Private Sector Pandemic Flu Tabletop Exercise Objectives.....3

Tabletop Methodology.....3

Defining the Flu4

World Health Organization Phases of Pandemic Flu Progression.....6

Pandemic Flu Preparation7

Scenario8

Response10

Recovery.....11

Exercise Findings and Recommendations12

Private Sector Pandemic Flu Tabletop Exercise Summary.....19

Annex A: Tabletop Facilitation Questions.....21

Annex B: Private Sector Pandemic Flu Tabletop Exercise Participants23

Annex C: Business Continuity Planning Actions25

Annex D: Official Websites for Pandemic Flu Information.....26

Annex E: Contact Information for NJ LINCS Coordinators27

PRIVATE SECTOR PANDEMIC FLU TABLETOP EXERCISE

BACKGROUND

The New Jersey Business Force Pandemic Flu tabletop exercise, hosted by PSEG at their South Plainfield facility, was the culminating activity in a six-month long series of programs aimed at informing and increasing member awareness about the importance of pandemic influenza planning. In all, 39 individuals from 26 different agencies, businesses and organizations participated. Exchanging ideas and views about the challenges and issues associated with pandemic flu preparation was a prevailing theme among the many raised during the exercise. In addition, the topics explored and conclusions generated from the Private Sector Pandemic Flu tabletop exercise are contained within this report. The tabletop reiterated and/or validated many of the areas previously discussed throughout the Pandemic Flu series.

The initial session dedicated to Pandemic Flu preparedness took place on February 3, 2006 at ADP in Roseland, NJ. Dr. Eddy Bresnitz, New Jersey Deputy Health Commissioner and State Epidemiologist, chaired an exploratory meeting attended by NJBF member companies. Dr. Bresnitz and David Gruber, Assistant Department of Health Commissioner for Emergency Services, discussed the State of New Jersey's preparatory planning efforts to mitigate outbreaks of pandemic flu. Both presenters solicited feedback from those in attendance regarding the Public Sector's planning initiatives.

The June 8th New Jersey Business Force Open Forum, hosted by Lucent Technologies at Basking Ridge, NJ, devoted its entire agenda to pandemic flu planning. Experts from both the Public and Private Sectors discussed the threat posed by pandemic flu and factors to consider in continuity of operations planning. The New Jersey Department of Health and Senior Services provided a status update on its Pandemic Flu preparedness program.

On June 14th, New Jersey Business Force member NC4 (The National Center for Crisis and Continuity Coordination) sponsored an Avian Flu workshop in New York City. Once again, high-profile speakers from both the Public and Private Sectors offered unique perspectives on the pandemic flu threat and its potential disruptions to our economy, society and health care system. An expert panel of sector specialists discussed relevant issues and mitigation strategies for countering the deleterious effects of a pandemic flu outbreak.

EXERCISE ASSUMPTIONS

The New Jersey Business Force (NJBF) Pandemic Flu tabletop format and scenario was derived from eight broad assumptions presumed applicable to natural occurring pandemic influenza events. Private sector companies, institutions and organizations may find these assumptions pertinent for their own internal exercises and preparedness efforts.

1. Outbreaks of pandemic flu will cause high mortality rates and long-term medical problems among the general population
 - a. The population is endangered during Pandemic Flu events – not critical infrastructure
 - b. The high rate of illness and death will severely impact the Private Sector
 - c. Events will rapidly overwhelm local and state Public Sector resources
 - d. Rapidly spreading flu will cause grave concerns among Private Sector workforces

2. Government crisis response will invariably affect business activities
3. A shortage of vaccines will exist initially resulting in strict controls over distribution
4. Vaccine development can only start after a pandemic outbreak begins
5. Liability issues will constrain Private Sector actions
6. Human Resource departments will play a crucial role during future pandemics
7. A pandemic will place tremendous stress on state, national and global economies
8. A pandemic is inevitable; it may not be Avian Flu but, in actuality, a totally different strain may appear

PRIVATE SECTOR PANDEMIC FLU TABLETOP EXERCISE OBJECTIVES

A principal tabletop goal was to demonstrate the value of pandemic flu preparedness in pre-event planning. Drawing from historical anecdotes, current case studies and trend analysis, private sector organizations examined the efficacy of tailoring existing business continuity plans to address the kind of exigencies encountered in earlier pandemic flu episodes. The intent of the seven exercise objectives listed below was to channel participant thought processes toward the complex problems prominent experts believe our society and government will confront during future pandemics – for several there are no answers only precedent.

1. Understand the unique challenges inherent during periods of Pandemic Flu
2. Identify Private Sector priorities during Pandemic Flu events
3. Discuss viable strategies for protecting employees and their families
4. Explore Private Sector decision-making processes
5. Expand and improve Business Continuity and Crisis Planning
6. Demonstrate why the Private Sector is integral to Pandemic Flu preparedness efforts
7. The sharing of “Best Practices” and ideas

TABLETOP METHODOLOGY

The New Jersey Business Force Private Sector Pandemic Flu Tabletop Exercise was designed and structured to maximize idea flow and information sharing. By adapting a modular format commonly found among traditional exercises, the exercise design team demonstrated why continuity planning is a cumulative, building block process. By applying sound assumptions and time-tested concepts in the pre-event stage, planners can influence specific outcomes during the Response and Recovery phases. Publishing an exercise report with a set of findings and recommendations was an overarching goal of the activity.

Generally run in informal settings, traditional tabletop exercises critique player reactions based on simulated events to enhance awareness, validate plans and procedures, and/or assess systems tied to

prevention, response, and recovery actions. Players divide into small groups, role play and evaluate existing plans against a hypothetical scenario. Conversely, the Private Sector Pandemic Flu Tabletop Exercise was a non-traditional, collaborate activity where players remained “seated at the table” and drew upon their professional expertise in response to questions and situations posed by a facilitator.

The exercise scenario was derived from a compilation of 1918 Pandemic Flu experiences, modeling projections from authoritative sources and findings from recently conducted simulations and studies. Factual accounts and explicit reference to the World Health Organization Phase 3 Pandemic Alert declaration dispelled any misconceptions about the scenario’s validity. The appearance of a mutated virus strain, sustained by human-to-human transmission, was an underlying premise of the scenario. Once this condition presents itself, the world will leap forward into the Pandemic Period.

During the course of the exercise, participants expanded their associations and contacts through the exchange of viewpoints. By sharing information, attendees could leverage the exercise conclusions and lessons generated to improve business continuity planning within their own organizations.

The Pandemic Flu Tabletop Exercise agenda consisted of five modules:

- Preparation
- Scenario
- Response
- Recovery
- Recap and Summary

DEFINING THE FLU

Hundreds of thousands of people a year are sickened by the respiratory illness influenza. Typically, influenza illness lasts about a week and is accompanied by an abrupt onset of fever, muscle aches, sore throat, and nonproductive cough. Some will experience severe malaise with a persistent cough lasting several days or weeks.

Influenza is not just contracted by people; different strains affect animals such as birds, pigs, poultry and horses. Occasionally a pig or chicken becomes infected by more than one strain of influenza. When that happens, the viruses may "share" genetic information, thus creating a whole new influenza strain.

The close proximity and interaction of human and animal populations in rural China is a main reason why influenza epidemics originate predominately in Asia. When people live on or near farms containing millions of pigs and chickens, influenza viruses can easily jump species. This condition produces new forms of influenza and, if the structures are right, causes epidemics since few in the population have immunities against novel, mutating viruses.

Pandemic Flu: Pandemic flu is a global or massive outbreak of serious illness and death caused by a virulent virus strain that adapts to humans. Since there is little natural immunity, the disease is passed easily from person-to-person. The following factors contribute to pandemic flu outbreaks:

- A virus must replicate itself in humans and cause serious illness
- A virus must be capable of efficient human-to-human transmission for community-wide outbreaks
- Novel virus sub-types must emerge against which the general population has little or no immunity
- A virus sub-type becomes pervasive and sustained by the affected population. For instance, computer models depict an estimated 2.6 million NJ residents being afflicted by a severe outbreak of Avian Flu Pandemic (NJ Pandemic Influenza Summit)

The consequential death rates from pandemic flu are largely determined by four factors:

- The number of people infected
- The virulence of the virus strain
- Underlying characteristics and vulnerabilities of a given population
- The effectiveness of preventive measures

The following terminology was introduced to the exercise participants and the subtleties among the flu variants explained:

Seasonal (or common) Flu: A person-to-person transmitted respiratory illness. Most people have some immunity and a vaccine is available. On average, 36,000 die annually in the United States.

Avian (or bird) Flu: A naturally occurring influenza virus found in wild bird populations. The H5N1 variant is deadly to domestic fowl and transmissible from birds to humans. There is no human immunity or available vaccine. Fortunately, the vast majority of avian influenza viruses do not infect people. Avian Flu is divided into two active forms:

Low Pathogenic Avian Influenza (LPAI)

- LPAI cases have occurred in domestic poultry in Southern New Jersey & Delaware
 - LPAI causes mild illness when appearing in humans
 - No deaths reported

High Pathogenic Avian Influenza (HPAI)

- H5N1 is a strain of this form
 - H5N1 is spreading westward from Asia and, when humans become infected, causes severe illness and a mortality rate of over 50%
 - A higher incidence of death will reduce the virus's spread

Currently, there is no sustained human-to-human pandemic flu although the World Health Organization (WHO) has declared a Phase 3 Pandemic Alert. According to the WHO, a third wave of Avian Flu commenced December 2004. More than 209 million fowl have died or been culled during the past 30 months due to the proliferation of the H5N1 virus.

WORLD HEALTH ORGANIZATION PHASES OF PANDEMIC INFLUENZA PROGRESSION

The **2005 World Health Global Influenza Preparedness Plan** identifies four distinct periods, each with corresponding phases tied to human infections emanating from a new human influenza virus subtype. The WHO designated periods and associated phases of increased health risk related to pandemic influenza are as follows:

Interpandemic Period

- Phase 1 – No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.
- Phase 2 – No new influenza virus subtypes detected in humans, however, a circulating animal influenza virus poses a substantial risk of human disease.
- The distinction between Phase 1 and 2 is based on the risk of human infection or disease resulting from strains circulating in animals.

Pandemic Alert Period

- Phase 3 - Human infections result from a new subtype but no human-to-human spread or, at most, rare instances of spread to close contacts.
- Phase 4 – Small clusters emerge with limited human-to-human transmission but spread is highly localized suggesting that the virus is not well adapted to humans.
- Phase 5 – Larger clusters arise but human-to-human spread remains localized suggesting that the virus is becoming increasing better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).

Pandemic Period

- Phase 6 - Increased pandemic spread with sustained transmission within the general population

Post pandemic period

- A return to the Interpandemic period (the expected levels of disease with a seasonal strain) follows, with a continued need to maintain surveillance and the regular updating of plans. An intensive phase of recovery and evaluation may be required.
- All phases except Phase 1 are assumed temporary.

PANDEMIC FLU PREPARATION

The steady march of Avian Flu since 2003 has grabbed the attention of governments and international bodies such as the World Health Organization. Each case detected in domestic birds, wild fowl and humans is assiduously recorded and monitored. Public health officials are bracing for the inevitable pandemic. When will it come? No one can say with authority but, based on past trends, a global pandemic is overdue.

Pandemic flu planning is a subset within a comprehensive business continuity construct. Asked what they would do during the preparatory, response and recovery stages, tabletop participants exchanged viewpoints about problem areas and mitigation options. These discussions identified the essential elements of a strategy for protecting employees and their families.

- Communicate with partners, consistencies and stakeholders during public health crises
- Develop information sharing arrangements with Public Health agencies and local OEMs
- Move critical functions to “safer places”
- Purchase antibacterial gels, supplies, masks and protective clothing
- Mandate seasonal flu vaccinations for employees
- Establish and enforce individual and group hygiene practices and standards
- Implement educational awareness and training programs
- Perform disinfectant deep cleaning of workplaces and facilities
- Stockpile antiviral medications for issue when a outbreak occurs
- Conduct regular system tests and exercises

While pandemic flu presents a unique set of challenges, in many instances, an all-hazards solution may suffice albeit with some modification. The planning considerations and mitigation measures participants discussed during the tabletop exercise included:

- Form internal pandemic flu teams to study relevant business continuity and crisis management issues
 - o Make planning processes specific and not individual specific
 - Eliminate single points of failure
 - Address succession planning
 - o Assess the capacity of Information Technology networks to absorb sudden increases in volume without encountering serious disruptions in service
 - o Discuss potential Private Sector liabilities during the pre-event stage
- Specify within business continuity plans those functions best adapted to a Virtual Office Concept
 - o Establish telecommuting procedures when coming to work exposes non-essential employees to unacceptable risk

- Contact service providers and sub-contractors about the efficacy and reliability of their preparation plans
 - o Identify what equipment and systems can be provided and supported
 - o Expectations about availability and delivery of services
 - o Peak thresholds of demand/usage
- Review sick leave policies and procedures for instances when employees report to work ill during public health alerts and emergencies
- Identify critical workers from a health risk perspective
 - o Cross-train personnel on critical systems for enhanced redundancy
- Develop aggressive crisis communication plans for employees, clients and regulators
 - o Growing segments of the American workforce are non-English speakers
 - How will the organization communicate with this group during emergencies?
 - o Although expensive, consider issuing critical employees satellite phones
- If your business operation is classified as critical infrastructure, apply for Government Emergency Telecommunications Service (GETS) cards
- Collaborate with New Jersey Local Information Network Communication System (LINCS) coordinators on fixed facility plans and the distribution of antiviral medications
 - o Register with LINCS to receive public health bulletins
 - o Annex E provides contact information for New Jersey's LINCS Coordinators
- Back-up, secure and store critical databases
- Institute education and training programs on hygiene practices to limit the spread of viruses
- Encourage employees to have individual and family emergency plans

SCENARIO

The issues and examples used to stimulate and create dialogue drew extensively upon historical case study, the 1918 Spanish Flu Pandemic, and public health materials and resources. The 1918 Flu Pandemic is more than a milestone worth reviewing; its very mention still reverberates decades later. From the perspective of the United States, intervening pandemics since 1918 have been classified as mild.

Experts put the approximate number of people who died from the 1918-19 Pandemic at between 50 and 100 million. Nearly 600,000 succumbed to the flu in the U.S. alone and more than 25% of the population became sickened. If the equivalent of the Spanish Flu struck today, forecasters predict the loss of 1.5 million Americans. Damage to our existing economic, governmental and societal institutions will be even more profound than what 1918 America endured.

The tabletop scenario portrayed the circumstances business, civic and government leaders could possibly confront if a severe pandemic invaded our connected, interdependent world. Back in 1918, the Pandemic

Flu decimated small communities, overwhelmed hospitals and funeral homes, seriously disrupted the normal course of life, produced countless orphans, and negated governmental measures to stop its deadly onslaught. Ironically, unprecedented prosperity and the irrelevance of distance due to modern, mass transportation portend the recurrence of a killer influenza.

Epidemiological prognosticators believe Asia is the logical epicenter for the next pandemic, specifically China. Here, conditions are ripe for an event of “perfect storm” proportions.

China’s transformation from an agrarian monolith under Mao Tse Tung (Zedung) to a 21st Century international industrial juggernaut is a truly remarkable story. China’s ability to feed its population of more than one billion while attaining the status of an unrivaled commercial and manufacturing giant is in sharp contrast with her agrarian past. Yet, the folkways of an agrarian ethos remain pervasive among China’s farming communities.

As sprawling urban centers bring large concentrations of people in close proximity to billions of farm animals especially poultry and pigs, the potential for mutating viruses to jump species grows. The 2003 SARS outbreak is a case in point.

The co-existence of two cultures, one rooted in the past and the other in the future, creates a dynamic where an amorphous virus might suddenly turned virulent and is then spread by a mobile population who uses air, rail and sea transport daily to reach the four corners of the Earth. A WHO Phase 4 or 5 alert issued in response to a human-to-human outbreak ANYWHERE will send up red flags for the Private Sector.

If a severe pandemic should strike the United States, Department of Health and Human Services estimates reveal upward to 90 million ill, nearly 10 million hospitalized and two million dead. These statistics are startling in their own right; however, possible longer-term impacts are equally sobering.

Citing from a report by the International Monetary Fund’s Avian Flu Working Group, approximated deaths from a Pandemic Flu like H5N1 are purely speculative. The World Health Organization has published a conservative figure – from 2 million to 7.4 million deaths – because it provides a useful and plausible planning target. This projection is based on the comparatively mild 1957 Pandemic. There is more at stake with Pandemic Flu than exclusively the issue life and death. Quality of life is at risk as well.

A World Bank warning cites global economic losses attributable to pandemic flu at between \$1.2 and \$2 trillion. Overall, world output could fall from 1% – 12%. Several sectors such as travel and tourism would see their volume of business drastically curtailed. Closer to home, the Congressional Budget Office places the cost of a severe pandemic on the U.S. economy at \$700 billion. Few dispute the inevitability of a pandemic or the incalculable price it will exact in lives and livelihoods. The exercise scenario was not meant to frighten its audience through sensationalism and a repertoire of intimidating facts and figures. Conversely, it was designed to foster critical thinking about the unthinkable.

The scenario was intended to evoke thought and generate potential solutions for problems unique to virulent pandemic flu. The facilitator employed supposition and extrapolation to engage participants in two-way dialogue about the follow-on Response and Recovery phases. When the conversation transitioned to active and post-event actions, one dictum became crystal clear: successful response and recovery is directly linked to preparation.

RESPONSE

Timely Private Sector pandemic flu response is dependent upon disease surveillance and investigations performed by public health organizations. The Private Sector monitors the globe for evidence confirming persistent human-to-human transmission of virulent viruses. If corroborated, companies will execute their pandemic flu plans immediately. The nature of the global marketplace and the prevalence of overseas facilities warrant rapid decision making to ensure continuity of operations when reliable pandemic flu indicators appear.

Mitigation is a dominant concept within the Private Sector response framework. Educational programs form the core of a robust mitigation strategy for inculcating a workforce with an awareness of the pandemic threat and to reinforce desired behaviors, individual and collective, for good hygiene, cough etiquette and social distancing.

Programs directed at protecting workers and their families should contain procedures for distributing anti-viral medications and vaccines to eligible individuals once these items become available. Anticipated anti-viral and vaccine shortages will necessitate, at least initially, rationing and prioritization across the pharmaceutical supply chain. Discussion about Recovery also identified a series of mitigation measures deemed fundamental for a viable response under less than favorable conditions and/or circumstances.

- Ensure a risk communications plan is in place and implemented to keep the following constituencies informed:
 - o Customers
 - o Suppliers
 - o Regulators
 - o Employees including workers who speak a foreign language
 - o Stakeholders
- Prevent “Presenteeism,” i.e., employees coming to work sick
- Encourage managers and supervisors to portray a sense of competence, confidence and decisiveness
- Collaborate with local public health on the distribution of medications
- Acquire and promote the wearing of appropriate personal protective equipment (PPE) especially for health care workers
- Enforce/support relevant Human Resource policies especially those governing personal hygiene and social distancing
- Coordinate response actions with Public Sector officials
- Get ahead of rapidly moving events to contain and minimize later impacts

Mitigation strategies could suffer from ill-timed or inflexible regulations. Participants believed governmental decisions and regulatory requirements may adversely affect the way the Private Sector responds to pandemic flu events. The granting of temporary exemptions and relief from restrictive regulations can improve the continuity of certain critical operations depending on the industry and circumstances involved.

RECOVERY

The module on Recovery ironically raised more questions than answers. On the one hand, participants understood how a catastrophic pandemic could radically change our way of life as we know it. They unequivocally acknowledged the power of pandemics to unleash inescapable and uncontrollable forces. On the other hand, forecasting the extent or degree of devastation and disruption is virtually impossible particularly when calculating in the complexities of an interconnected world. The task of defining the “New Normal” in a post-pandemic period is simply too difficult even with the insights acquired from the 1918-19 Spanish Flu experience.

An integral piece of recovery relates back to the preparatory stage where planners try to envision what the post-pandemic period will look like. Alternate or nebulous futures call for business continuity and emergency planners to broaden their purview and stand ready to reprioritize as assumptions and conditions change. Essentially, how a company or organization conducts operations during Recovery depends on the vagaries encountered.

The group highlighted a set of generalized planning factors based on the scenario presented. The form these planning considerations eventually take is situation dependent.

- Outside factors will inexorably affect workforce availability
 - o Travel restrictions
 - o Family circumstances and situations
 - o Psychological impacts brought on by events
 - o Physical health
 - o Closure of schools
 - o Accessibility/Stability of the Internet and Information Technology (IT) architectures
 - o Enactment of government emergency declarations
 - o Relocation of workers
- Relief from government regulations may be necessary depending on prevailing circumstances
- Incorporation of critical attributes and elements into Business Continuity Planning
 - o Self-reliance and self-sufficiency
 - o Flexibility and resiliency
 - o Employee welfare at the worksite
 - o Plan to adapt
- Determine what capabilities are necessary to survive based on an all-hazards approach
- Reassess priorities and policies
- Coordinate activities with outside organizations
 - o Other businesses
 - o Governmental agencies and departments

EXERCISE FINDINGS AND RECOMMENDATIONS

The threat is legitimate: the world is under a Phase 3 Pandemic Alert.

Consensus prevailed on a pivotal assumption underlying the exercise – the world is presently in the third phase of a World Health Organization issued Pandemic Alert. The threat from Avian Flu or another equally deadly virus strain was viewed as credible and largely unavoidable. Several participants therefore discussed the forward-leaning, proactive actions their organizations are adopting for strategy development, formalized training programs and purchasing equipment.

Foremost are the concerted attempts to effect attitudinal changes in senior managers and workers now rather than delaying until a pandemic event unfolds. One company has launched a formal training curriculum replete with an end-of-course examination. Those who fail the exam repeat the course. Exactly where companies eventually fall along the Preparation Continuum is based on a variety of factors including awareness of potential threats and the commitment expressed for stringently evaluating internal policies and procedures.

Recommendation: Awareness and preparation become the foundation for mitigating the potential effects of pandemic flu. To postpone the revising of policies or waiting to implement critical programs until a pandemic outbreak manifests itself within the population of this or any other country is simply too late. The pre-event stage is the time to devote resources (human and/or monetary) in support of mitigation strategies.

Existing evidence along with expert opinion points to the inevitability of a pandemic flu event. While the exact time of a pandemic outbreak, its geographical spread and length of duration cannot be predicted with complete confidence, indicators tracked by the public health community give cause for concern. The pre-event stage is, in actuality, the lull before the storm and affords Private Sector leaders and business continuity planners the chance to position their organizations for survival. To do otherwise is a gamble where wrong bets carry devastating consequences.

Pandemic Flu endangers population to a much greater degree than critical infrastructure.

People endure significant risk during a flu pandemic. Generally, critical infrastructure escapes largely unscathed until the victim count climbs. The exercise scenario underscored this point by examining the 1918 Pandemic Flu's impact on both the American economy and society.

The 1918-1919 Pandemic Flu was the last epic pandemic to wreak havoc across the globe. The United States alone suffered more than 675,000 deaths. America's institutions and infrastructure deteriorated due to fear, incapacitation and grievous loss. Since population is a "soft target" for mutating viruses, awareness and education become tools to ameliorate anticipated "spikes" in flu cases.

The altering of existing behavioral patterns is inexorably linked to health care and victim management. Despite the ominous presence of danger, behavior modification takes time. Several organizations attending the tabletop exercise have already implemented training initiatives focusing on personal cleanliness/hygiene.

Recommendation: Protecting workers against undue risk by concentrating on awareness and prevention helps protect the viability of critical infrastructure. According to participants, employee training must commence in the pre-event stage to later reduce the incidence of needless exposure and infection. Understanding the rationale behind such programs and recognizing the valuable contributions of workers

during crises like public health emergencies instills in individuals a sense of relevancy while hopefully improving compliance with mandated practices.

Highly touted automation and advanced Information Technology (IT) systems can perform functions without human operators for only limited periods. Human interface is required to minimize disruptions through the repair and restoration of vital systems especially when knocked or taken off-line. Sustained absentee rates of 40% or higher lasting six to eight weeks will undoubtedly undercut the Private Sector's ability to deliver services and product lines. Substantive change, both attitudinal and behavioral, is dependent upon acceptance and buy-in across the organization.

Triggers for action vary between the Public and Private Sectors, often significantly.

The nature of today's international marketplace and interconnected supply chain leaves American business and industry susceptible to worldwide upheavals. Businesses large and small could reach operational and personnel decision points and thresholds well ahead of a governmental declared public health emergency. Market forces drive critical business continuity decisions and these are best made sooner rather than later.

Pandemic outbreaks unfold progressively, thereby permitting close monitoring and surveillance by health agencies. Even as public health agencies compile real-time data and distribute alerts, the Private Sector's need for such information is immediate. Time is of the essence when a nascent outbreak in a seemingly far off country or region carries the potential to threaten overseas facilities and operations. Exercise participants repeatedly identified the trigger for activating business continuity plans in the case of Avian Flu as the first occurrence of persistent human-to-human transmission anywhere in the world.

Recommendation: Private Sector information requirements and trigger points differ from those of the Public Sector. Formalized agreements and protocols are imperative for sharing information between government officials, public health agencies and the Private Sector. Without timely, actionable and reliable information, companies find their options narrowed to damage control and adjusting core operations on the fly. Forcing the Private Sector to perform in crisis mode unnecessarily is not in the best interests of the country. If getting the economy back up and running is a major goal of Recovery, then bringing the Private Sector into the information loop early aids the decision-making process for restoring the nation's economic health.

Shifting emergency management paradigms place increased emphasis on self-sufficiency.

The specter of catastrophe, pandemic flu included, necessitates increased Private Sector emphasis on self-sufficiency and self-help. The Private Sector recognizes the on-going shift in preparation and response paradigms. The Private Sector is expected to share the responsibility for disaster preparation, response and recovery. The old paradigm of a ubiquitous Federal response pouring into a disaster area with abundant resources and personnel is unrealistic in today's fiscally and resource constrained environment. There are discernable limits to government capabilities and capacities. Emergency Response and Homeland Security departments within Private Sector organizations are viewed as growing but critical cost centers given the alarming proliferation of threats.

Recommendation: Companies who fail to plan properly or rely on someone else to secure their safety are inviting calamity. Participants commented on the robust policies and procedures their companies are weighing and, in many cases, enforcing to ensure business continuity proceeds without fatal disruptions. Guaranteeing business survival demands commitment, changes in organizational culture and a re-thinking of priorities and programs. An applicable question for the Private Sector to ponder is, "How long will we be on our own?"

A disparity in size, wealth and influence among companies can expose economic and social divisions during catastrophic events.

Businesses are assuming increased responsibilities for protecting themselves. This trend is creating a Darwinesque dichotomy. With the government espousing self-help, the disparity of resources and fiscal vitality among private sector companies could threaten fissures in the social fabric.

In New Orleans, Hurricane Katrina revealed the potential for schisms when planning shortfalls and/or a dearth of resources forced critical sectors like public hospitals to rely extensively on government assistance. Confusion, delays and breakdowns in the emergency logistics chain caused undue loss and suffering especially when badly needed relief arrived late or not at all. Several private New Orleans hospitals in affluent areas with, access to other resources, struggled but kept their doors open.

Generally speaking, large companies have the planning expertise and financial wherewithal to take care of their employees. Those lacking the monetary assets or are unable to properly safeguard their workforces could find themselves in precarious situations following serious catastrophes. What happens when government does not deliver the required level of assistance in a timely manner is well documented.

Recommendation: The 48-72 Hour Rule reminiscent of an earlier response paradigm seemingly does not apply anymore. Previously, the Federal government, through the Federal Emergency Management Agency, would activate Emergency Support Functions (ESF) for the purpose of deploying assets to disaster stricken areas within two to three days. Today, government response operates under limitations. Hurricanes Katrina and Rita are examples of this new reality. Moreover, policy pronouncements from Federal officials are urging citizens and the Private Sector alike to pursue self-sufficiency through formal in-house emergency planning programs. Companies who adequately support continuity and preparatory plans improve their own likelihood of recovery and survival following catastrophic events. Conversely, those who are least prepared or ill suited to dedicate the commensurate funding for recovery increase their odds of failure.

Viable business continuity planning is multifaceted.

Pandemic flu planning is a component of business continuity planning. Relying solely on Tamiflu, Relenza or other anti-viral medications is no substitute for comprehensive business continuity planning. The principles of continuity planning still apply regardless if the menacing event is pandemic flu or some other scourge. Several recommended business continuity measures advocated by the exercise participants to offset the devastating impact of pandemic influenza included: dispersing the workforce, mandatory social distancing, restructuring the workweek, and telecommuting.

Recommendation: Dispensing medications or administering vaccinations during a medical emergency is just one aspect of a multi-prong approach to a complex and daunting challenge. Business continuity strategies must factor in crisis communications (internal and external), succession planning, crisis counseling, credentialing of essential employees, educating the workforce, and relocating to other sites. Mass prophylaxis of employees will also mean synchronizing plans with local public health officials specifically Local Information Network Communication System (LINCS) coordinators. Annex E contains a listing of the state's 22 coordinators with contact numbers.

Tele-commuting and working remotely carry inherent technological shortcomings.

Computer models depict a 40% or more absentee rate among the American workforce for 12 to 18 weeks during a severe pandemic. Migrating to electronic networks and the Internet is a preferred option

frequently cited by the business community to reduce exposure risks. Non-essential employees would work from home using a virtual medium to minimize lost productivity. Under this arrangement, workers who also care for dependent parents or school-aged children could balance job and family obligations while a health emergency persists. Academic institutions espouse a similar approach in lieu of traditional classes to reduce human-to-human transmissions of deadly viruses.

Bona fide reservations surfaced during the exercise about the reliability and sustainability of IT systems as students and workers shift their primary locus to home or remote locations. Sophisticated systems, regardless of supporting technologies, can run only so long before crashing. Are existing IT systems robust enough to absorb a sudden surge in demand stemming from telecommuters and students who switch to on-line classes during school closures? Of equal concern is the additional burden placed on the Internet and networks by large numbers of casual and recreational users with “found” time on their hands.

An attendee from the telecommunications industry outlined the difficulties of trying to replicate the anomalous system demands arising during state and regional health emergencies. He was confident about satisfying any increases in business related volume but the casual/recreational user is a wild card. The issue of managing abnormal demand over an extended period of time presents the IT industry with a dilemma. With the proliferation of computing, communication and wireless devices, how do you suddenly curtail the consumer’s voracious appetite for services to minimize competition with business and academia during an emergency?

Recommendation: Leverage time during the pre-event period to test telecommuting and worker dispersal plans against the surge capacity of existing communication/IT systems. Run exercises to uncover shortfalls and vulnerabilities and assemble an action plan to correct discovered deficiencies.

Stress hardware and network systems by simulating hypothetical operational conditions to the fullest extent possible. Do dry runs where non-essential employees work from home periodically. Adverse weather events are excellent test beds. Do not assume Internet connectivity is available in every home or that network firewalls will permit unencumbered access from outside locations. Remember, Murphy’s Law is alive and well. Most importantly, increase bandwidth capacity now when the assets and personnel are available. Like so many other preparatory activities, the surveying and “hardening” of IT networks requires an unwavering commitment from the company’s top leadership.

Employees must understand the personal obligations they have toward their employer, co-workers, community, and family.

Several companies had already launched broad pandemic flu prevention programs. Business continuity strategies however will have little consequence if not fully embraced by the workforce. Instilling trust in the minds of workers and their families is crucial for successful plan execution. Employees must exhibit confidence in a company’s ability to protect them and their families. To gain worker acceptance and compliance, they must first comprehend the threat and how they can personally contribute to its mitigation. Workers will typically endorse mitigation measures like personal hygiene, social distancing and cough etiquette if they feel safe on the job and believe competent leaders are in charge.

Recommendation: Few plans are effective without an accompanying education and training strategy. Instructional methodology and curriculum delivery will vary among private sector organizations; however, education is the cornerstone for eliciting desired behavioral changes whether adherence to strict personal hygiene or preventing “presenteeism,” i.e., employees reporting to work when sick. The ultimate goal is to institute effective and lasting changes across the organization.

Education is a prerequisite for understanding the immediacy and nature of the pandemic flu threat.

A good internal communications plan will help prepare workers psychologically for a pandemic event. The goal is to acknowledge the dangers of an impending pandemic flu outbreak and solicit support for effective mitigation strategies. Each person plays an important part in preparing for a pandemic by taking training seriously and having an individual and family emergency plan.

Questions arose about information management in the pre-event stage, i.e., what do you tell the workforce and when? Furthermore, several in attendance wanted to avoid causing undue alarm with pre-mature information campaigns. While there is no one-size-fits-all solution, contact with workers should start early in the pre-event stage to foster confidence in a company's preparatory measures.

Similarly, public education initiatives led by emergency management agencies represent the other half of a collaborative crisis communication program. Intended messages must resonate across society by rationally addressing potential vulnerabilities and what to do should the worst-case scenario materialize. Crisis communications must also consider the diversity of customs and languages found across the American workforce.

Recommendation: Substantive discussion among an eclectic group of exercise participants underscored the enormous value derived from educating civic leaders, workers, customers, regulators, and the public during the pre-event stage. A unified approach to Public-Private pandemic flu communications should start early enough to cultivate trust in both Public and Private Sector initiatives. If successful, expect gradual rather than immediate changes in the audiences targeted. Results do not occur overnight. It takes time to alter and shape foundational, ingrained behaviors.

Consider the implications of collective bargaining agreements during pandemic flu planning.

The ability of unions and collective bargaining units to influence pandemic flu preparations surfaced during the exercise. Unforeseen contingencies may necessitate Draconian actions such as suspending accepted labor practices or negating previously negotiated contract provisions. Several participants wondered whether or not labor agreements or rule sets would thwart or diminish reasonable business continuity actions now under consideration.

Outbreaks of pandemic flu over broad geographical areas may necessitate the dispersal of workers, changes to traditional workday hours or even the location where work is performed. Concern was also expressed about potential shortages of essential workers at all levels due to absenteeism, illness and death. Presently, managers can fill union dedicated jobs during crises or strikes but union workers cannot move up to managerial positions under similar circumstances. Thus, with the prospects of a decimated or depleted workforce, the Private Sector may have to evaluate special accommodations like cross-training. For the regulated industries that comprise a large segment of the nation's critical infrastructure, government may have to grant special exemptions and/or waivers.

Recommendation: The enormity of the pandemic flu problem warrants union engagement and input. Dialogue about the looming threat and need for pragmatic measures calls for amity not enmity. Differences, real and perceived, must be set aside for the welfare of the organization. Union involvement in pandemic flu planning processes and mitigation strategy development is a way to garner cooperation. Again, contingency plans will only work if the people at whom the measures are directed understand the prevailing threat and comprehend the rationale behind organizational planning protocols. Viable pandemic flu preparation demands unanimity and unity of effort.

While granting authority to local municipalities, Home Rule can also slow momentum toward uniform statewide policies and programs with subsequent repercussions for the Private Sector.

New Jersey's Home Rule form of government delegates autonomy to and limits state interference in the affairs of the Garden State's 566 municipalities. While strengthening the power of local officials, Home Rule can also detract from overall policy development and enforcement. The issue of credentialing illustrates this point.

A residual finding from TOPOFF 3 (April 2005) was the need for statewide, standardized credentials. Credentialing permits essential personnel to traverse the state's roadways despite travel bans imposed under declared emergencies. While the State will supposedly provide a credentialing template soon, responsibility for issuing credentials will ultimately rest with county offices of emergency management. According to attendees, the counties of Essex, Middlesex and Morris have a process in place. In fact, several said their company identification cards are accepted during emergencies in lieu of state credentials.

Recommendation: The Private Sector wants unanswered questions surrounding conflicting regulations, as in the example above, resolved well in advance of an event. The core issue is not Home Rule but the willingness of governmental entities at all levels to set disagreements aside and settle conflicts and disputes over authority and jurisdiction for the greater good of all.

The Canadian SARS experience portends a disproportionate risk for health care workers during a Pandemic Flu outbreak.

Computer models project a persistent workplace absentee rate of 40% or higher during a severe pandemic flu outbreak. While accurate prognostication is inarguably problematic, the 2003 Severe Acute Respiratory Syndrome (SARS) outbreak symbolizes the real dangers health care workers may encounter. During the SARS outbreak in Canada, health care providers, even with personal protective equipment (PPE), experienced infection and mortality rates above the norm.

Exposing health care workers to a greater probability of risk could degrade the delivery and quality of medical services. Should the state's health care system undergo extreme stress during a pandemic due to shortages of supplies and staff, then the repercussions will surely ripple outward to other sectors. Eventually over time, the drive for self-preservation among health care workers may supplant any personal sense of service before self.

Recommendation: Properly orchestrated protocols should promote confidence and trust in emergency medical plans and processes. Provide health care workers with the proper training and exercising on precautions and safeguards including personal protective measures. Everyone involved must know the planning scheme as well as the risks. In addition, being candid and forthright promotes understanding and acceptance for how the organization will respond in a crisis. Waiting until the proverbial stuff hits the fan before bringing the workforce up to speed on new practices is too late.

Sharing plans to dispel myths and misconceptions allows employees, not just those in health care, to deal with complex issues rationally. Compartmentalizing information yields the opposite result. Use recurring drills and exercises to reinforce key processes. Another aspect is information sharing. Communicate pandemic flu plans externally with other agencies to strengthen partnerships and expand network affiliations. Getting through a crisis on the scale of the 1918 Spanish Flu will entail close cooperation with governmental agencies and other Private Sector entities.

Attempt to define the “New Normal’ in a post-pandemic world.

Would a classic pandemic drastically alter the American way of life? Would the Private Sector conduct daily business differently? Tabletop participants thought so.

Catastrophic events leave behind a legacy of loss and suffering in their wake. Past pandemics, specifically the 1918 Spanish Flu, demonstrated an ability to disrupt the underpinnings of society: government, economy, family and community institutions, social order, and services. The toll exacted is not only physical but psychological, often lasting for generations. Experts believe future pandemics will carry similar repercussions but to what degree remains an unknown.

Recommendation: Business continuity planning does not cease during Response. Rather, it is part of a continuous process and should encompass a range of hazards and threats. Preparing for pandemic flu is, in actuality, a sub-set of business continuity planning.

Apocalyptic events are change agents in their own right. Thus, envisioning and defining what will constitute the “New Normal” in a post-pandemic period is an onerous but imperative task. Regardless of how dire the predictions, there are a number of things continuity planners can do to improve their organization’s posture. The first is to manage change.

A desire to re-capture the familiarities and routines of living is an expression of human nature. Yet, returning to the status quo following a tumultuous trauma is highly improbable. Regardless of how hard one tries to resist, change is a life rhythm and a natural consequence of tragedy.

Successful organizations rely on adaptability and resiliency to ward off failure especially when our world turns upside down. Try to visualize what the post-pandemic flu environment will look like in order to undertake fresh operations or restore old ones. Strive to recognize the new and emerging realities in the post-pandemic period and align your organization accordingly.

PRIVATE SECTOR PANDEMIC FLU TABLETOP EXERCISE SUMMARY

Straight up - pandemic flu is an ambiguous but insidious threat. Its mention recalls images of mass death, sickness and misery. Survivors are left dazed and physically and mentally exhausted by the ordeal. In some respects, it is a time traveler from another era and incongruent with the milieu of a modern, global community. When will it strike? No one can say with certainty.

Today, debate continues about whether or not Avian Flu will spread with ferocity like the 1918 Spanish Flu. Experts are lined up on both sides of the issue as infections in birds and people gradually circumnavigate the Earth. Some detractors point to the uproar surrounding Y2K invoking the tempest in a tea pot metaphor. Yet, Y2K was a technological threat; pandemic flu is a naturally occurring event. Past history is filled with chronicles about mutating viruses spinning out of control. According to the public health community, the world is overdue for a virulent pandemic whether Avian Flu or another variant. The underlying premise for the tabletop exercise assumed the latter position, i.e., a pandemic outbreak is inevitable.

A diverse group of Private Sector representatives examined the challenges unique to pandemic flu and explored courses of action in the Preparatory, Response and Recovery stages. The way companies prepare for a pandemic event is absolutely critical; survival depends on the extent of preparation undertaken.

Preparation is best accomplished in the pre-event stage. According to the World Health Organization's delineation of pandemic periods, the world is currently in the pre-event stage. This fact was readily recognized by many of those in attendance. Based on comments made, the Private Sector is not sitting idly by and waiting for outside direction to what it views as an impending crisis. Business continuity planning is seen by the Private Sector as the key to readiness.

Preparation for a pandemic flu outbreak is, in actuality, a sub-set of business continuity planning. Operations continuity and restoration of essential business activities depend on a number of planning considerations affecting personnel, physical plants, productivity, leadership succession, and constituencies and stakeholders. The failure to plan adequately particularly in the pre-event stage carries high stakes and serious consequences. A list of business continuity planning actions is found in Annex D.

Proactive companies are strengthening their business continuity plans through revisions and updates. Due to a fundamental shift in planning and response philosophies, pandemic flu preparation should incorporate the concepts of self-sufficiency, personal responsibility and the reduction of risk. Government is no longer the omnipotent protector who shields all from harm or gathers up the pieces following a disaster. Public officials candidly acknowledge the constraints and limitations now hampering government's capacity to shoulder the burden for Response and Recovery. Government is in need of partners. These partners reside in the Private Sector: business/industry, non-profits and faith-based entities.

Throughout the exercise, participants discussed at length the Private Sector's role in pandemic flu preparation, response and recovery. This group of experts examined the challenges and problem areas a severe pandemic flu outbreak might pose and identified corresponding mitigation strategies to ensure business survival. The participants themselves represented a wide cross-section of disciplines and specializations. The names of the organizations represented at the tabletop exercise are available in Annex B.

Finally, the statements below encapsulate the exercise findings derived from insightful deliberation and expert opinion.

- *The threat is legitimate: the world is under a Phase 3 Pandemic Alert.*
- *Pandemic Flu endangers population to a much greater degree than critical infrastructure.*
- *Triggers for action vary between the Public and Private Sectors, often significantly.*
- *Shifting emergency management paradigms place increased emphasis on self-sufficiency.*
- *A disparity in size, wealth and influence among companies can expose economic and social divisions during catastrophic events.*
- *Viable business continuity planning is multifaceted.*
- *Tele-commuting and working remotely carry inherent technological shortcomings.*
- *Employees must understand the personal obligations they have toward their employer, co-workers, community, and family.*
- *Education is a prerequisite for understanding the immediacy and nature of the pandemic flu threat.*
- *Consider the implications of collective bargaining agreements during pandemic flu planning.*
- *While granting authority to local municipalities, Home Rule can also slow momentum toward uniform statewide policies and programs with subsequent repercussions for the Private Sector.*
- *The Canadian SARS experience portends a disproportionate risk for health care workers during a Pandemic Flu outbreak.*
- *Attempt to define the “New Normal” in a post-pandemic world.*

ANNEX A

TABLETOP FACILITATION QUESTIONS

PRIVATE SECTOR PREPARATION

1. World Health Organization has issued a Phase 3 Alert
 - a. How does this alert impact your organization?
 - b. What initial measures do you take?
 - c. How do you impress upon employees the importance of having individual and family preparedness plans?
2. What can the Private Sector do currently to prepare for the next pandemic?
Six months from today? One year from now?
3. How will a catastrophic outbreak of pandemic flu challenge current business continuity planning assumptions (e.g., simultaneous collapse of several industry sectors)?
 - a. What areas should business continuity/crisis response planning focus upon?
4. What can companies do to get their workforces through a pandemic lasting from one to three years?
5. What should the Private Sector's top priorities be during preparation for a pandemic?
6. What are the challenges/dilemmas the Private Sector should anticipate during its planning efforts?
7. How will government regulations & changes alter existing plans?
8. Have you tested your continuity & crisis plans?

PRIVATE SECTOR RESPONSE

1. What will be the Private Sector's trigger points?
2. How can we mitigate the effects of Pandemic Flu?
3. Does your company have a plan to distribute medications to employees?
 - a. Who within your company will have access to extremely limited antiviral supplies?
4. How would your company operate with a consistent absentee rate of 40% or greater?
5. What responses can the Private Sector anticipate from government to an outbreak in Asia of a virulent human-to-human transmitted flu virus?
6. Will employers pay workers & guarantee health coverage even when facilities shut down during a pandemic?
7. If national or state borders close, how will your business operate?
8. How do you "flow" Information between government & Private Sector?
9. What critical actions must take place during a pandemic outbreak to restore a semblance of "normalcy" within your organization and/or sector?

PRIVATE SECTOR RECOVERY

1. A prevailing theme of emergency preparedness is "returning the country to normal as soon as possible." With 40% or more of your workforce absent for weeks at time, how will "normal" be defined?
 - a. What will be the new "normal?"
 - b. How will we know?
2. To what extent will factors outside the workplace affect workforce availability?
3. How do you convince employees that it is safe to return to work following the initial wave of pandemic flu?

ANNEX B

PRIVATE SECTOR PANDEMIC FLU TABLETOP PARTICIPANTS

ADP

CIT Group

Criterion Strategies

Dow Jones

Dun & Bradstreet

Eagle Rock Alliance

Goldman Sachs

Hoffman-La Roche

ITS Medical Systems

Lehman Brothers Inc.

Lucent Technologies

The McGraw-Hill Companies Inc.

Merrill Lynch

New Jersey Board of Public Utilities

New Jersey Department of Health and Human Services

New Jersey Institute of Technology – NJ Homeland Security Technology Systems Center

New Jersey National Guard

New Jersey Resources

New Jersey State Police

PSEG

Plainsboro Office of Emergency Management

Plainsboro Police Department

Rutgers University – Food Policy Institute

Scott Shepherd Associates

University of Medicine and Dentistry of New Jersey

- Center for Public Health Preparedness
- School of Public Health

Weil, Gotshal & Manges LLP

Verizon

ANNEX C

BUSINESS CONTINUITY PLANNING ACTIONS

- Develop new and review existing Human Resources policies governing:
 - Telecommuting
 - Reporting of on-site illnesses
 - Barring sick employees from coming to work
 - Identification and credentialing of essential workers
 - Sick leave compensation
 - Counseling and mental health services
 - Hygiene measures
- Cooperate and work with other businesses
 - Pool resources
 - Coordinate and cooperate for the good of all
- Coordinate with local, county and state governments
- Plan for the succession of responsibilities
- Prepare systems and networks for remote access
 - Set up conference call profiles
 - Establish video conferencing protocols
- Social Distancing
- Develop and publicize personal hygiene procedures
 - Education and training
 - Signage
 - Hand washing stations
- Ensure a crisis communications plan is in place
 - Awareness campaign
 - Posters and literature
 - Identify constituents and stakeholders
- Eliminate single points of failure

ANNEX D

OFFICIAL WEBSITES FOR PANDEMIC FLU INFORMATION

- Guidelines issued by local health officials

<http://www.state.nj.us/health/>

- U. S. Government Websites

<http://www.pandemicflu.gov>

<http://www.hhs.gov>

<http://www.cdc.gov>

<http://www.dhs.gov/dhspublic>

- The World Health Organization Website

<http://www.who.int/csr/disease/influenza/en/>

ANNEX E

CONTACT INFORMATION FOR NJ LINC'S COORDINATORS

NJ-LINC'S Agency Contacts

[Last Updated 7/28/2005—Periodic Updates @ <http://www.state.nj.us/health/lh/lincs/lincsdir.pdf>]

NJ-Lincs Agency	Health Officer	Email	LINC'S Coordinator	Email	Phone
Atlantic County Health Dept	Pat Diamond	pat.diamond@njlincs.net	Joia DiStefano	jdistefa@njlincs.net	(609) 645-5935
Bergen County Dept of Health Services	Stephen Tiffinger	st2@njlincs.net	James Dockerty	jd3@njlincs.net	(201) 634-2848
Burlington County Health Dept	Robert Gogats	gogatsro@njlincs.net	Tina Rizzo	tr2@njlincs.net	(609) 265-5548
Camden County Dept of Health	Jung Cho	choj@njlincs.net	Mark Hebert	mh1@njlincs.net	(856) 374-5117
Cape May County Health Dept	Louis Lamanna	lamanna@njlincs.net	Barbara Beck	barbara.beck@njlincs.net	(609) 463-6692
Cumberland/Salem Dept. of Health	Herbert Roeschke	roeschke@njlincs.net	Jill Sheppard	jc4@njlincs.net	(856) 935-7510 X8306
Essex Regional Health Commission	Robert Ferraiuolo	robterra@njlincs.net	Richard Budris	rbudris@essexregional.org	(973) 325-3212
Newark Dept of Health	Marsha McGowan	mcgowan@njlincs.net	Brian Harris	brian.harris@njlincs.net	(973) 733-7561
Gloucester County Dept of Health	Donald Benedik	benedikd@njlincs.net	James Cromley	jc3@njlincs.net	(856) 307-4805
Hudson Regional Health Commission	Robert Ferraiuolo	robterra@njlincs.net	Christina Butieb	christina.butieb@njlincs.net	(201) 223-1133
Hunterdon County Dept of Health	John Beckley	beckleyj@njlincs.net	Stephanie Brown	sb5@njlincs.net	(908) 806-5553
City of Trenton - Dept of Health & Human Svs	Richard Salter	salterri@njlincs.net	Vacant		
Middlesex County Public Health Dept	David Papi	dp1@njlincs.net	Cara Dicristina	cd4@njlincs.net	(732) 745-3100
Monmouth County Health Dept	Lester Jargowsky	jargowsle@njlincs.net	Michele Gallagher	michele.gallagher@njlincs.net	(732) 431-7456
Morris County Office of Health Management	Howard Steinberg	hs1@njlincs.net	Ted Taukus	Ted.Taukus@njlincs.net	(973) 631-5484
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Passaic County Dept of Health	Deborah Rucke-Drake	dr6@njlincs.net	Joy Alfano	Joy.Alfano@njlincs.net	(973) 881-4396
Paterson Division of Health	Joseph Surowiec	surowiec@njlincs.net	Latanya Brown	lb2@njlincs.net	(973) 321-1277 X2422

Somerset County Health Dept	John Horensky	horensky@njlinics.net	Sumantha Banerjee	sb1@njlinics.net	(908) 203-6056
Sussex County Dept of Health & Human Svc	Herbert Yardley	hy1@njlinics.net	Tina Cohen	tc2@njlinics.net	(973) 579-9488 X1243
Union County Health Dept	Denise Santiago	ds1@njlinics.net	Roberta Milano	rm2@njlinics.net	(908) 518-5620
Warren County Health Dept	John Hawk	hawkjohn@njlinics.net	Thomas D'Angelo	Thomas.Dangelo@njlinics.net	(908) 689-6693