



# Transportation Sector Workshop

## Strategies for Pandemic Flu Preparedness

June 11<sup>th</sup>, 2009

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### Participant Materials

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**THE PORT AUTHORITY** OF NY & NJ





**—The Transportation Sector—  
America’s Critical Infrastructure  
and Pandemic Influenza  
Workshop/Exercise**



**Sponsored by  
The Port Authority of NY & NJ  
Roche Laboratories, Inc.  
West Orange, New Jersey  
June 11, 2009**

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# The Transportation Sector and Pandemic Influenza

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## The Transportation Sector America's Critical Infrastructure and Pandemic Influenza Table of Contents

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### WORKSHOP/EXERCISE AGENDA

TIME	ACTIVITY
8:00 – 8:30 AM	Arrival/Registration <b>Continental Breakfast</b>
8:30 – 9:15 AM	Introduction and Opening Remarks
9:15 – 10:00 AM	Pandemic Influenza: Operational Strategies <ul style="list-style-type: none"> <li>• <i>Latest developments with the pandemic threat</i></li> <li>• <i>Overview of operational strategies</i></li> </ul>
10:00 – 10:15 AM	<b>Break and Refreshments</b>
10:15 – 12:00 PM	H1N1 – What a difference a day made! <ul style="list-style-type: none"> <li>• <i>Tabletop discussions regarding company responses to the H1N1 outbreak and WHO pandemic threat level changes</i></li> <li>• <i>Facilitated discussions led by professional moderators</i></li> <li>• <i>Report-out and sharing of solutions among participants</i></li> </ul>
12:00 – 12:15 PM	<b>Break and Lunch Set-up</b>
12:15 – 1:05 PM	Expert Panel & Working Lunch <ul style="list-style-type: none"> <li>• <i>Multi-disciplinary panel will provide input from their area of expertise</i></li> <li>• <i>Moderated Q&amp;A</i></li> </ul>
1:05 – 1:15 PM	<b>Break</b>
1:15 – 2:45 PM	Facilitated Exercise <ul style="list-style-type: none"> <li>• <i>Tabletop discussions in response to a series of business and employee protection issues</i></li> <li>• <i>Facilitated discussions led by professional moderators</i></li> <li>• <i>Report-out and sharing of solutions among participants</i></li> </ul>
2:45 – 3:00 PM	Conclusion: Key Learnings, Next Steps, & Brief Closing Remarks

## WORKSHOP/EXERCISE INTRODUCTION

### GOAL

The goal of this workshop/exercise is to bring transportation leaders together to learn from each other, and to allow them to experience – through an exercise environment – the type of issues that they are likely to face in a pandemic. This collective experience, along with sharing ideas, will further develop the transportation sector’s awareness and knowledge of how to manage in a pandemic. The exercises are designed to allow them to experience firsthand the challenges and difficulties they will face during a moderate or severe influenza pandemic. Through this experiential learning, the goal is that participants will learn the pharmacological and non-pharmacological methods that they can employ during a pandemic. Through this open environment, transportation leaders will have the opportunity to “try on” different strategies and at the same time “water-test” their own pandemic plans.

### WORKSHOP SCOPE

The workshop will consist of the following:

- Introductory lecture.
- Facilitated discussion on the handling of the H1N1 outbreak and WHO pandemic level change.
- One tabletop exercise.
- Expert panel discussion.

The workshop schedule will also include ample networking time for participants to share best practices and interact with pandemic experts.

### OBJECTIVES

1. Review the current status of the pandemic threat.
2. Explore how companies responded to the sudden emergence of H1N1 and the WHO pandemic threat level changes.
3. Review the non-pharmacological interventions that should be included in a pandemic plan.
4. Detail the pharmacological interventions that can be employed in a pandemic.
5. Facilitate a robust conversation among participants through the use of interactive exercises to explore employee protection strategies.
6. Explore how recommendations for use of antiviral agents, personal protective equipment (PPE), personal hygiene practices, and social distancing will impact business continuity and resilience.
7. Explore how various companies have developed and implemented employee protection strategies.
8. Gauge the pandemic readiness level of businesses in the region regarding employee protection matters.

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9. Provide businesses with real examples of strategies they can adopt to augment their own employee protection plans.

### WORKSHOP EXERCISE ASSUMPTIONS AND ARTIFICIALITIES

In any exercise, a number of assumptions and artificialities may be necessary to achieve the desired goals in the time allotted, and to present the necessary developments to enable participants to achieve exercise objectives.

- It is assumed that the events and incidents which will be presented are plausible and events occur as they are stated.
- In order to facilitate learning and exploring possibilities, a healthy dose of “exercise magic” has been used. You are asked not to debate whether something has happened, can happen or is available, it just is.
- Exercises have the greatest value if they are treated as real. Please stay in role.
- Don’t just think about what is currently facing you; remember to keep one eye on the future.
- Exercises are for learning and mistakes are expected (and are almost required). This is a time to explore possible responses with a group before the pandemic actually occurs.

### SAFETY & SECURITY PLAN

- All personnel participating in the exercise are responsible to ensure a safe and secure site.
- All participants and observers will be issued stickers or badges to identify their participation.
- As members of the exercise control team, facilitators are responsible for monitoring and assessing hazardous and unsafe situations and developing measures for assuring personnel health and safety.
- The phrase ***“This is a real world emergency”*** will be used to indicate a real emergency not related to the exercise, and will stop the exercise immediately.

### EXERCISE VOLUNTEER ROLES AT EACH TABLE

There are two volunteer roles per table that are important to the success of the exercise.

1. A **table spokesperson**, who will give a short 3 – 5 minute summary of your table’s discussion.
2. A **table scribe**, who will be asked to capture the key points of the conversation so the team can report out its findings.

**—The Transportation Sector—  
America's Critical Infrastructure and  
Pandemic Influenza – H1N1 Discussion**



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## H1N1 DISCUSSION

### BACKGROUND

The rapid emergence of H1N1 caught most companies off guard. From the first widespread reports on Friday, April 24, 2009, to the rapid elevation to WHO level four on April 27 and WHO level five on April 29, the disease spread at a dizzying and alarming rate. Many companies had pandemic plans, although they were not always complete or they hadn't been looked at in months. Everyone in your company wanted to know "What is our plan?" and "What do you have in place?" to face this rapidly changing threat.

### FACILITATED DISCUSSION QUESTIONS

The goal of the first part of today's activities is to have a general discussion to explore how the emerging threat was handled in your company.

As a group, please discuss:

1. What worked well in your company?
2. What needs improvement?
3. Do you have any concerns now that this initial threat has subsided?
4. What are your concerns going forward?

### ADDITIONAL H1N1 DISCUSSION/FACILITATOR QUESTIONS

In addition to the general comments regarding H1N1, your table facilitator will lead a discussion on the following four questions.

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#### 1) Employee Fear and Anxiety

- **TOPIC AREA: Administrative – Training and Education**
  - The developments in Mexico created a high level of fear and anxiety among employees.
  - Employees may still be expressing anxiety about the flu.
  - Every time someone sneezed or coughed, the entire room jumped.
  - Employees asked their managers what the company will do if things worsen.
- **Moderated questions:**
  1. How did your company educate employees on the company plans?
  2. Was there employee education on the flu to separate fact from fiction?
  3. Who in the company addressed employee concerns?
  4. How were these concerns addressed? When?
  5. Was there a general awareness of the importance of cough and sneeze

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etiquette?

6. What other things did your company consider doing to calm employees?

### 2) Employee Distancing in the Workplace

- **TOPIC AREA: Administrative – Social Distancing**
  - Employees may have heard from the media that the flu can jump between people who are closer than 6 feet apart. They were worried that their workspaces are closer than that, or that people to pass closer than 6 feet in the corridors.
  - Other employees may have expressed serious concerns about low-walled cubicles and common high use areas such as break rooms or the cafeteria.
- **Moderated questions:**
  1. How did your company address the issue of safe social distancing in the workplace while ensuring that productivity wasn't dramatically impacted?
  2. For workspaces that are grouped closer than 6 feet apart, how did you keep employees safe? If you have call centers or dispatch centers, how did you keep those employees safe?
  3. How were common areas, such as the cafeteria, managed?
  4. If employees shared a vehicle, how did they stay safe?
  5. How was customer contact changed in order to maintain proper distance?
  6. How were meetings conducted to maintain proper distancing? Did all meetings become virtual? Most? Many? Some?
  7. What type of protective equipment, if any, did you plan to use? What did you actually use?
  8. In a high-rise building, how did employees use the elevator to remain safe?

### 3) Anti-viral Medications

- **TOPIC AREA: Anti-viral Medications**
  - Several of your managers may have called asking whether the company plans to distribute anti-viral medications to protect key employees. They may have seen news reports of some companies that have their own anti-viral stockpiles and were wondering whether your company had plans to develop such a stockpile.
- **Moderated Questions:**
  1. Has your organization considered stockpiling anti-viral medications?
  2. What are the barriers for purchasing anti-viral medications?
  3. Were you depending on the state or Federal government to protect your employees?
  4. Did you identify "critical" employees you wanted to protect with anti-viral medications?
  5. How were medications distributed, and when?
  6. If you have employees that travel for business, did you provide travel kits with antivirals in it?

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### **4) Government Guidance**

- **TOPIC AREA: Guidance from Federal, State and Local Authorities**
  - Events developed rapidly in this fast-moving situation. Government guidance varied as the circumstances evolved.
  - Think of your type of business – what did you need to know from the government entities in order to continue to operate?
- **Moderated questions:**
  1. What type of guidance did you feel you needed from the Federal, State and/or Local government entities?
  2. Given the situation, what type of recommended actions and counter-measures would you like to have known about from the government?
  3. What kind of support did you feel you needed from the government to stay in operation?
  4. Who in the government was able to assist your company with the procurement of antivirals?

**—The Transportation Sector—  
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## FACILITATED EXERCISE

### BACKGROUND

**FOR THE PURPOSE OF THIS EXERCISE IT IS NOW 6 WEEKS INTO LEVEL 6**

- Six weeks ago, the WHO raised the Pandemic Threat Level to 'Six' after it was confirmed that influenza had spread to several regions in the world with little or no chance to prevent further spread around the world.
  - Mortality continues to primarily affect younger adults, with 90% of the cases in people under 40 years of age.
  - Most countries are now reporting cases.
  - CDC is forecasting a Category Five pandemic based on current mortality and infectivity rates.
- Statistics:
  - Attack rate of virus = 30%.
  - Mortality rate = 0.2%.
  - Median affected age = 25 years.
  - Males and females are being infected equally.
  - Estimates of infections and deaths at **six weeks into Level 'Six'**:
    - Worldwide:

• Infections/Illness	=	199,523,127
• Deaths	=	3,990,462
    - U.S.:

• Infections/Illness	=	9,103,280
• Deaths	=	18,206
    - Your State

• Infections	=	372,983
• Hospitalization	=	32,045
• Deaths	=	746

### NARRATIVE

The world is now six weeks into WHO Pandemic Level 'Six,' and in the early stages of "hunker down" mode. For all intents and purposes, things are closed everywhere.

### World Response

- Borders are generally open, but travel is very limited, as is the movement of goods.
- Airports remain open however most commercial flights are extremely curtailed or cancelled due to public health concerns.

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- Many travelers are still “stranded” in foreign countries, unable to get home. U.S. embassies around the world are attempting to help repatriate these travelers.
- Food and supply shortages are starting to appear in most third-world regions of the world.
- Financial analysts predict that we are entering a severe worldwide recession.
- There is a worldwide shortage of raw materials for manufacturing and supplies due to disruptions in the supply chain from border closures and personnel shortages. Just-in-time supply systems are making this situation worse.
- Health systems in many countries are collapsing under the weight of massive amounts of people seeking medical care. In addition to the usual amount of people seeking medical care for common problems, there are large amounts of “worried well” seeking care for minor problems that they perceive as flu-related.
- Asia’s first wave has not yet peaked as they are still seeing an increasing number of new cases.
- There is still a tremendous amount of anxiety throughout the world.

### **United States Response**

- U.S. borders are open, but the flow of goods is diminished. Personnel shortages at ports are limiting the amounts of good that are offloaded from cargo ships.
- Transportation:
  - Airports remain open however most commercial airline flights have been cancelled. Flight schedules are severely limited
  - Commuter rail and bus services are continuing under limited schedules in many parts of the country.
  - Rail freight is continuing, although in a diminished capacity.
  - Trucking has continued with a slight to moderate decrease. Trucking companies are hiring school bus drivers who have been furloughed from closed school districts.
- Schools, daycare centers, and universities are closed and have been since WHO Pandemic Level ‘Six’ was first announced. In some locations, dormitories have been converted to overflow hospitals or medical clinics.
- There is a tremendous amount of speculation as to the long-term financial impact on the U.S. economy.
  - The U.S. stock market has continued to slide, sometimes precipitously, based on rumors and speculation.
  - Many investors, both individual and institutional, have moved to cash or gold in an attempt to move to safer investments. Some however, are bottom-feeding for what they consider stunning “fire-sale” prices.
- Citizens around the country stockpiled supplies and food early on when they heard stories of inventory shortages in the news. Some are now beginning to run out of stockpiled items, especially staples.
- There is a booming trade in black market anti-viral medications. The CDC is warning people to be wary of counterfeit drugs purchased over the Internet and through other non-traditional sources.

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- The telecommunications network is generally intact. Some ISPs are reporting network congestion and scattered outages as the demand for Internet access has greatly increased. Telephone networks are reporting higher-than-normal volume, and there are some cellular network outages across the country.
- Electric utilities have maintained service but there are increasing delays in emergency restoration of service.
- There is a tremendous amount of anxiety throughout the United States fueled by constant media reports of deaths and illness.
- The Midwest has been hit with a series of severe thunderstorms spawning tornadoes that have created additional problems for those areas.
- Manufacturing output has diminished sharply due to illness among workers and lack of supplies and raw materials. Some companies have had serious problems with debt service.
- Soldiers scheduled to return stateside from Iraq, Afghanistan, and other countries are stranded overseas.

### **Your State Response**

- Public gatherings such as churches, theaters, restaurants, malls, and sporting arenas were closed late last month when the WHO raised the Pandemic Threat Level to 'Six.' All sports leagues are exploring ways to keep players safe so they can play televised games.
- Conventions and large regional meetings have been cancelled for six months.
- Most hotels are closed; some have been commandeered by the Department of Health under the Emergency Health Powers Act. They have been turned into Alternate Care Centers (ACCs) to handle pandemic patient surge.
- Rush-hour traffic is a memory, as many firms now require employees to work from home.
- There was an initial rush to purchase masks, gloves, and disinfectants. When these items are still available, they cost approximately 10 times their normal price.
- Grocery store shelves are restocked intermittently. When deliveries arrive, the shelves are empty again in hours. Deliveries are running about 40% of normal volume.
- All K-12 schools and universities are closed and will remain closed through the first wave. All daycare centers are closed for an indefinite period of time.
- The health system is overwhelmed with people:
  - Those seeking care for problems they believe are related to pandemic influenza.
  - Those who actually have the flu.
  - Those who have their usual medical problems.
- The situation at hospitals has been made worse because many community physicians have closed their offices. Elective surgery has been cancelled. In most locations, anti-viral medications are in short supply. Availability of antibiotics used to treat secondary infections and pneumonia has been affected by the supply-chain disruptions. The general wait-time in emergency departments for non-flu complaints

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(such as heart attacks and diabetes-related problems) has greatly increased. Health systems are experiencing 25% personnel shortages.

- There is marked concern about the impact of flu and the general decrease in access to routine care for critical workers such as medical professionals, police, fire, emergency medical service workers, military, and critical infrastructure workers (i.e., transit workers, power plant operators, water system engineers, food deliverymen, etc.).
- The stress of the event has caused an increase in 9-1-1 calls for domestic disturbances.
- Gasoline and diesel fuel are in limited supply. There are increasing coal shortages in the Midwest and East for power plants. Home heating oil deliveries are intermittent in some areas of the state. Energy futures have been bid up to record levels.

### Your Company's Status

- The company has as many people as possible working from home, but many are having difficulties due to phone and equipment problems.
- For those who must work on-site, long work days are taking a toll.
- Your employee absentee rate is hovering at 25%. Some departments, especially those with younger employees under 30 years old, have been especially hard hit.
- Management ranks have been thinned, with surrogates stepping in to make decisions – sometimes without appropriate background or training. Top leaders who are still available are stressed trying to hold things together.
- The HR department is totally overwhelmed between its own decrease in staff and dealing with all the personnel problems and issues.
- Department managers are asking for assistance in staffing by changing employees hours from an 8-hour shift to a 12-hour shift. This conflicts with some of the regulations regarding safe work hours. You are seeking guidance on this policy question.

## EXERCISE INJECTS/FACILITATOR QUESTIONS

### 1). Training

- **TOPIC AREA: Just-in-time training**
  - New information is continuously emerging from the CDC and other government agencies on the evolving pandemic.
  - Recommendations on PPE and antiviral medication dosing have changed several times over the past several months.
  - Your employees are gathering information from many sources, some reliable, some unreliable.
- **Moderated questions:**
  1. How are you providing just-in-time training to your employees when new recommendations emerge?
  2. How are you disseminating new information to employees across your



## **The Transportation Sector and Pandemic Influenza**

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- company including those onsite, those working from home and those on furlough?
3. Who is crafting employee messages and who is responsible to address the concerns of the employees?
  4. How are you addressing the concerns of the security staff about their own safety?
  5. How are you protecting your facilities in the face of the circulating rumors?
  6. How are you handling internet and telephone problems that prevent workers at home?

### **2). Employee Support**

- **TOPIC AREA: Emotional Support**
  - Everyone in your company has a family member that is sick or has died or knows someone who is sick or has died.
  - Some employees are not coping well with the stress of the pandemic and seem at their wits' end. Others are depressed and lethargic.
- **Moderated questions:**
  1. Does your employee assistance program have the capability to greatly increase their telephone counseling services? Does the EAP program have the technology in place?
  2. Are there plans in place to augment their counseling staff to handle the increased need during a pandemic?
  3. How will you support your employees if your EAP program is unavailable?

### **3). Continuity of Operations**

- **TOPIC AREA: Leadership Succession Planning**
  - Several of your top leaders are too sick to function in their roles at work.
  - There are rumors that your CEO may have died of the flu.
  - Employees are concerned about how the company will survive if all the leaders are sick or dead.
- **Moderated Questions:**
  1. What is the "command and control" structure that you have in place to manage this emergency? Will it be "physical" or "virtual"?
  2. What is the succession plan for your company's leadership?
  3. What plans are in place if there is an insufficient number of board members available to conduct company business?
  4. What is your responsibility to your shareholders if there is a big leadership change?
  5. Who has the authority to make critical decisions or sign documents if senior leadership is unavailable?

### **4) Facilities Operations**

- **TOPIC AREA: Workplace Cleaning**
  - Many employees who share “common equipment” are resistant to using someone’s phone or keyboard and are demanding their own equipment.
  - Employees sharing vehicles, control panels or working in small spaces are expressing anxiety about cleaning protocols and being near other workers and customers.
  - Employees are bringing in all sorts of cleaning supplies to keep their areas clean.
  - You have received reports that many desktops and countertops have been severely damaged by inappropriate cleaning solution being used on them.
  - In one area, several employees had a severe reaction to a “super” cleaning solution created by a coworker containing bleach and ammonia mixed together.
  - Your normal cleaning company is experiencing a 40% absenteeism rate and cannot meet even your routine cleaning requirements.
- **Moderated questions:**
  1. How are you promoting safe cleaning of workspaces with the correct solutions?
  2. What strategies are you using to keep common areas like kitchens, break rooms, and bathrooms clean and usable?
  3. How are you promoting that your work environment is a safe one so that employees will feel safe to come to work?
  4. What strategy are you using to achieve increased cleaning of your workspaces (especially high-touch surfaces) required by the pandemic, given that your cleaning service cannot meet your basic needs?
  5. Are you expecting employees to clean their own spaces? If so, are you providing cleaning solutions and training?
  6. Are you providing hand sanitizers for all employees?
  7. What are your protocols for maintaining HVAC equipment? How often are you changing filters? What is your air-exchange ratio (fresh to recycled air)?

# **Pandemic Influenza**

## **Operational Strategies**

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## Emergency Management & Safety Solutions

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### The Transportation Sector – America's Critical Infrastructure and Pandemic Influenza

June 2009



*Out of  
Danger  
Comes  
Opportunity*

## Emergency Management & Safety Solutions

### Agenda

- The current pandemic status
- Developing a pandemic plan
  - Non-Pharmacological Interventions
    - Administrative Controls
    - Environmental Controls
    - Engineering Controls
    - Personal Protective Equipment
  - Pharmacological Interventions

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## Current Pandemic Status

- H1N1
- H5N1



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## Why is influenza so different?

- Business Continuity Planning generally has two assumptions:
  - Back to “business as usual” in 30 days or less
  - Go from the “affected” site to the “unaffected site” and resume business

***Neither apply with Pandemic Influenza***

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## Building a Resilient Organization

- The good news...
  - **All** of the pandemic planning will make your organization a much more resilient organization.



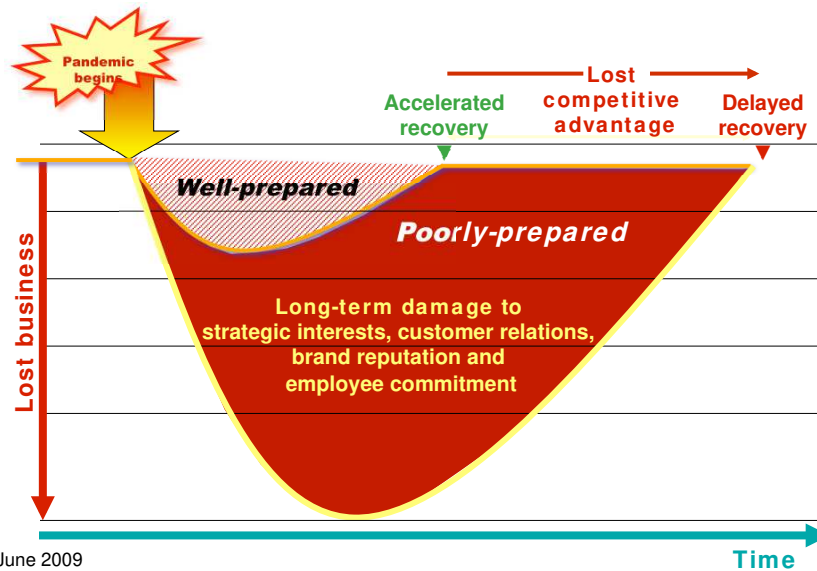
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## Capture the competitive advantage by acting now



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Dave Kieffer, Mercer Consulting

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## Emergency Management & Safety Solutions

### WHO Phases

- **Phase 1 & 2** No new influenza virus subtypes have been detected in humans.
- **Phase 3. Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.**
- **Phase 4.** Small cluster(s) with *limited human-to-human transmission*.
- **Phase 5.** Larger cluster(s) but human-to-human spread *still localized*,
- **Phase 6. Pandemic:** increased and sustained transmission in general population.
  - Pandemics historically last approximately 18 months.

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## Emergency Management & Safety Solutions

### Planning Assumptions

1. 40% absenteeism of staff, vendors, services within the community such as health care, police, fire, etc.
2. The pandemic may last as long as eighteen months in three separate waves
  - Mortality and morbidity will increase and decrease in spurts.
3. Critical functions carried out by contractors, consultants and vendors cannot be guaranteed.
4. Civil society infrastructure will be stressed, but remain functional.
5. Potential closure of gathering places in the community including schools, churches, events, malls, etc.

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### Planning Assumptions

6. Will likely have less than six weeks of warning from the time the pandemic is announced before it reaches the United States.
7. No remedies will be immediately available. Tamiflu and other antivirals will be in very limited supply.
  - Vaccinations will take 9-10 months and antibiotics are only for the treatment of a secondary bacterial infection.
8. Current WHO Alert Levels do not provide any indication regarding the time interval between levels.
  - Current thinking among experts is that while it may take a significant amount of time for a virus to reach Alert Level 4 (small clusters of human to human viral spread), the time interval between Alert Levels 4, 5 and 6 may be rapid (ranging from days, to weeks, to months).
9. Phases One - Three are planning; Phases Four - Six execution.
10. Susceptibility will be universal.

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## Emergency Management & Safety Solutions

### Pandemic Plan Strategies

- There are basically two strategies to consider when developing your plan:
  - Non-Pharmacological Interventions
  - Pharmacological Interventions

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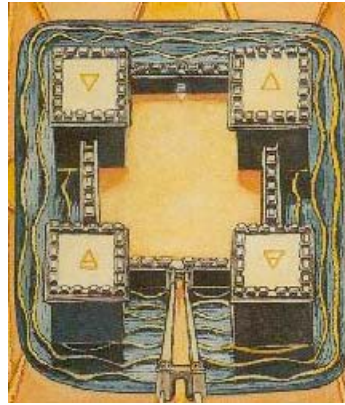


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## Emergency Management & Safety Solutions

### Non-Pharmalogical Interventions

- Administrative Controls
- Environmental Controls
- Engineering Controls
- Personal Protective Equipment



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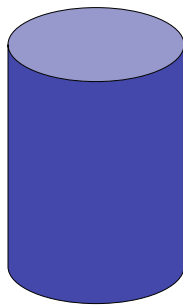
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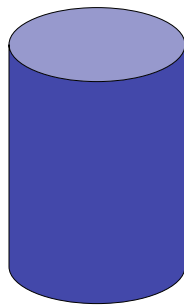
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## Emergency Management & Safety Solutions

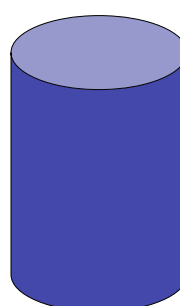
### Administrative Controls - Human Resources



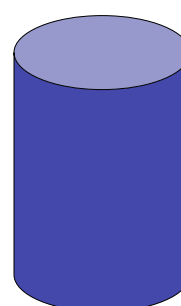
**Category One**  
Essential & "must"  
be @ work



**Category Two**  
Essential &  
"must" work  
BUT can work  
remotely



**Category Three**  
Can work  
remotely but not  
essential



**Category Four**  
Not essential- no  
need for them to  
work at this time

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## Emergency Management & Safety Solutions

### Human Resources

- Essential staff who must be work (Category 1):
  - Social Distancing
  - Masks
  - Health education on handwashing
  - Spread people out on different shifts to spread them out
  - Employee cleans area frequently
  - Eliminate all face-to-face meetings
  - Antivirals?



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## Emergency Management & Safety Solutions

### Human Resources

- Essential staff but can be remote: install a robust work from home program (Category 2):
  - High-speed connection
  - Company sponsored computer and all necessary peripherals
  - Work from home at least one day a month
  - Demonstrate in advance that can work from home
  - Desktop support for the home
  - Plan for what to do if working remotely fails

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## Emergency Management & Safety Solutions

# Human Resources

- Not essential to work (Category 3 and 4):
  - How long do you pay those who aren't working?
    - Pay partially?
    - How long do you continue benefits?
- Other HR issues
  - What if they refuse to come to work?
  - What if a family member is sick but the employee is well - do you have them come in?
  - If a person comes down with the flu after being at work it is a workers comp issue?
  - What if schools are closed?

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## Emergency Management & Safety Solutions

# Expatriate Employees & Families



- Employees abroad - Do you bring them back?
  - When?
  - Families earlier?
- Employees in US – When do you send them back?
- What if they want to come back and you don't think it is appropriate?

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## Emergency Management & Safety Solutions

### Stricken Employees/Customers at Work



- How to handle a sick employee/customer at work
  - Mask
  - Isolate
  - Trained responders at work
- What if 9-1-1 doesn't come?

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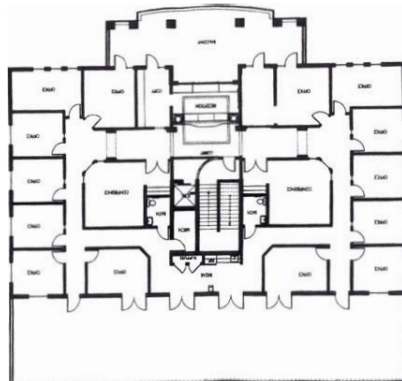
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## Emergency Management & Safety Solutions

### Administrative Controls - Social Distancing



- Develop guidelines for social distancing.
  - Floor plans for spreading staff out at least six feet from each other.
  - Look at shift work.

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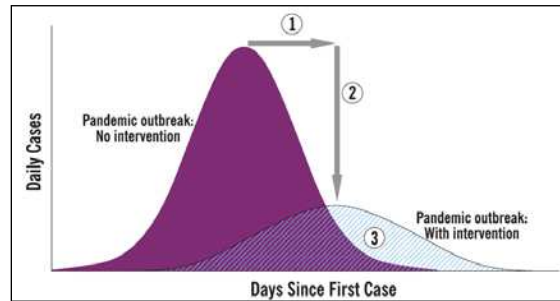
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## Emergency Management & Safety Solutions

# Community-Based Interventions - The Impact of Social Distancing



1. Delay outbreak peak
2. Decompress peak burden on hospitals & infrastructure
3. Diminish overall cases and health impacts

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## Emergency Management & Safety Solutions

# Administrative Controls - Travel



- Do you restrict travel?
  - If so, when?
- Can you make travel safe?
  - PPE
- What about personal travel?
- Strategies could include:
  - Home quarantine for 10 days
  - Work from home
- What if a countries borders are closed?
- Do you have a relationship with an international medical provider?
  - Medical evacuation
  - Evacuation of remains

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## Emergency Management & Safety Solutions

# Administrative Controls - Communication

- Communication plan including template communications, strategies and tools.
- Update employee information including all forms of contact
  - Work and personal cell, office and personal email
- Develop strategies if the phones are overloaded
  - Text messaging
  - VoIP (www.skype)
  - Instant messaging (skype, yahoo, aol)

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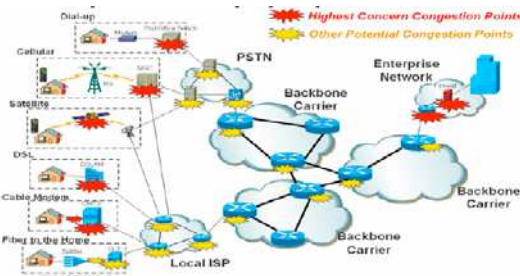
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# DHS Study: Pandemic Influenza Impact on Communications Networks



- Page 4: Telecommuters – “Employees who plan to telecommute during a pandemic and are truly critical to business operations should not rely on best effort, residential Internet access.”
  - Released December 2007

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## Emergency Management & Safety Solutions

# Administrative Controls - Security



- Visitor restrictions:
  - When?
  - How?
  - Exceptions?
  - Who can authorize?
- Visitor/vendor screening:
  - When?
  - How?
- Training
  - Personal Protective Equip.
  - Procedures

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## Emergency Management & Safety Solutions

# Administrative Controls - Education

- Influenza Basics
- Workplace cleaning
- Hand washing technique
- “Cover Your Cough” campaign
- Polite social distancing
- Stay Home if you are sick policy
- Virtual meeting techniques and strategies
- Strategies to minimize face to face contact with customers



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## Emergency Management & Safety Solutions

# Administrative Controls – Seasonal Flu Programs

- Every year in the United States,
  - 5 to 20 percent of the population will get the flu
  - 200,000 people will be hospitalized from flu complications
  - about 36,000 will die
- Seasonal flu programs:
  - Seasonal flu vaccinations
  - Health education
  - Company seen as part of the solution
- Seasonal flu programs will likely result in lowered insurance costs, decreased company costs and increased employee productivity.



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## Emergency Management & Safety Solutions

# Engineering Controls - HVAC

- HVAC system
  - How often to change filters
  - Changing filters
  - How much recycled air?



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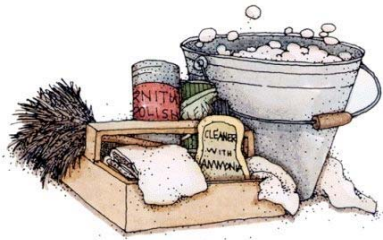




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## Emergency Management & Safety Solutions

### Environmental Controls - Janitorial



- Janitorial
  - Cleaning procedures
  - Disinfectants that match the surface needs.
- Virus survival:
  - Virus lives on hard non-porous surfaces > 24 hours
  - On porous surfaces 24 - 48 hours
  - Swiss banknotes up to 17 days!

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## Emergency Management & Safety Solutions

### Environmental Controls - Janitorial



- Surface cleaning and disinfecting
- **High Touch Areas and surfaces** require increased frequent and more intense cleaning
  - Doorbells
  - Intercoms
  - Handrails
  - Door handles
  - Elevator buttons
  - Steering wheels
  - Common controls (levers, buttons)

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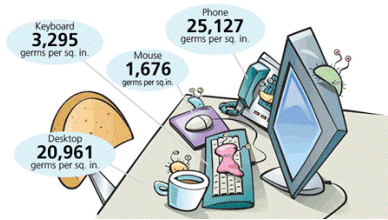
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### Environmental Controls - Infection Control at Work



- Cleaning work areas
  - What are the top four germiest office work areas?

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### Environmental Controls - Hand Sanitizers



- Work by stripping away the outer layer of oil on the skin.
  - Must be at least 60% alcohol.
- 99.9% effective
  - Not exactly, tested on inanimate objects, not human hands.
  - Good alternative when you can't wash your hands but NO substitute for good hand washing.

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## Emergency Management & Safety Solutions

# Personal Protective Equipment (PPE)



- Should you wear PPE?
  - When
  - Why?
- Masks
  - N95
  - Surgical masks
- Gloves
  - Latex
  - Nitrile

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# PPE - Facemask Recommendations

- Encourages employers to stockpile respirators and facemasks so they can protect employees during a pandemic.
- Discusses various types of respirators and facemasks available for use.
- Provides estimates of the quantity of N95 respirators and/or facemasks employers should stockpile.



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### PPE - Tool to Estimate Mask Use

Occupational setting	Proportion of medium or higher risk employees	Number of respirators or facemasks per employee per work shift		Number of respirators or facemasks per employee for a pandemic (120 work days)	
		N95 Respirators (high or very high risk)	Facemasks (medium risk)	N95 Respirators (high or very high risk)	Facemasks (medium risk)
<b>Healthcare</b>					
Hospital	67%	2	0	240	0
Outpatient office/clinic	67%	4	0	480	0
Long term care	25%	1	3	120	360
Home healthcare	90%	2	4	240	480
Emergency medical services	100%	8	0	960	0
<b>First responders</b>					
Law enforcement	90%	2	2	240	240
Corrections	90%	1	3	120	360
Fire department (non-career and volunteer)	90%	2	2	240	240
Medium risk employees	NA	0	2	0	240

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### Pharmacological Interventions

- Vaccination
- Antiviral Prophylaxis and Therapy

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# Vaccinations



- The best method of preventing and reducing the impact of the flu on the population is the timely development, distribution, and administration of influenza vaccine
- Key target groups for **seasonal** influenza include persons at increased risk for complications:
  - Health care workers
  - People 50-64 years
  - Children 6-23 months
  - Pregnant women

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# Pandemic Vaccinations



- The Federal Pandemic Plan advocates pandemic vaccination for:
  - Those essential to the pandemic response and provide care for persons who are ill.
  - Those who maintain essential community services.
  - Children.
  - Workers who are at greater risk of infection due to their job.

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# Pre Pandemic and Pandemic Vaccines

- Pre-pandemic vaccines (H5N1)
  - Could provide earlier protection
  - Won't match pandemic flu strain exactly
  - First shots given before a pandemic
  - Likely to require 2 doses 21 days apart
- Pandemic vaccine best option
  - Directly matches circulating flu strain
  - Up to 6 months to develop
  - May require 1 dose or 2 doses 3-4 weeks apart

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# Antiviral Therapy



- Two antivirals are being used for treatment in H5N1:
  - Tamiflu (Osetamivir) - Roche.
  - Relenza (Zanamivir) - GlaxoSmithKline
- These drugs work as a Neuraminidase (N) inhibitor
  - Prevent the virus from spreading in your body.
- Questions to consider:
  - How is it administered?
  - What is the shelf life?
  - Prophylaxis vs. Treatment?
  - How to set up a program?

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## Proposed Considerations for Antiviral Drug Stockpiling by Employers In Preparation for an Influenza Pandemic

Draft Guidance for Stakeholder Discussion

The "Proposed Considerations for Antiviral Drug Stockpiling by Employers in Preparation for an Influenza Pandemic" was developed by a Federal working group to provide information to employers to inform planning and implementation decisions on antiviral drug stockpiling and, if drugs are stockpiled, to assure that they are maintained and used optimally.

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## Potential Role of Antivirals in a Pandemic

- The WHO recommends antivirals for the prevention of the spread of pandemic influenza disease through household contacts.
- The CDC encourages the private sector to consider stockpiling in advance of a pandemic as part of comprehensive pandemic planning program.
- Mathematical modeling suggests that antivirals could delay the spread of a pandemic influenza virus thus gaining time to augment vaccine supplies.

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## Employers and Stockpiling Antivirals

- May elect to stockpile for several reasons:
  - Assure early treatment for those who are ill.
  - Provide pre-exposure prophylaxis for employees.
    - Probably occupational exposure/risk to ill persons
    - Essential to business operations
    - Certain critical infrastructure workers and/or
    - All workforce
  - Provide post exposure prophylaxis following household or workplace exposure.
  - Protect overseas employees and operations.

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## Key issues in Antiviral Stockpiling

- Plan for collaboration with state and local health departments
- Comply with State dispensing laws.
- Consider the ethical and equity concerns.
- Develop a stockpiling and dispensing model
  - Utilize existing health care providers or pharmacy's
  - Contract with a wholesale drug distributor
  - Stockpile onsite
  - Dispense pre-pandemic
- Educate employees and families

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# THANK YOU!

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**Facilitator/Speaker**

**Biographies**

***Captain Lynn Slepski, - Deputy Director, Office of Risk Management and Analysis, National Protection and Programs Directorate, Department of Homeland Security***

Captain Lynn Slepski, United States Public Health Service, serves as the Senior Public Health Advisor and the Emergency Management Coordinator. This office is located in the National Protection and Programs Directorate of the U.S. Department of Homeland Security. In this capacity she coordinates Continuity of Operations and Government, incident management and plan activities as well as provides consultation on public health and medically related issues across the Department. CAPT Slepski has been assigned to the Department since November of 2003, where she previously served as the Principal Science and Technology Advisor to the Headquarters Integration Staff, and Director of the Crisis Response Coordination Division within the Science and Technology Directorate. She has been an integral part of the DHS Pandemic Influenza planning for the past 48 months.

CAPT Slepski has a broad background in operations, response and Weapons of Mass Destruction. Since 1995, her duties have centered on emergency response and emergency operations at the national level, where she has functioned as a Response Coordinator for the Commissioned Corps Readiness Force in the U.S. Department of Health and Human Services Office of Emergency Preparedness and as a counterterrorism expert in the Food and Drug Administration. She is a deployable member of the Public Health Service and has led numerous deployments. During the Anthrax events of October of 2001, she was in charge of the USPHS team that undertook the first mass chemoprophylaxis program on Capitol Hill, establishing the model that was used at all other sites. More recently she led an immunization task force, which recently assisted the District of Columbia in immunizing over 19,000 school children in 11 days.

CAPT Slepski earned her PhD from the Uniformed Services University in 2008. She is nationally certified as a Clinical Nurse Specialist in Community Health and holds additional certifications as a Trauma Nurse and Health Promotion and Education Coordinator. She is a frequently requested speaker in the areas of WMD, Mass Casualty Disasters, Emergency Response, the National Response Framework and most recently Pandemic Influenza.

***R. James Caverly, Director Partnership and Outreach Division, Infrastructure Protection and National Protection and Programs Directorate, Department of Homeland Security***

Jim Caverly is the Director of the Partnership and Outreach Division (POD), within the Infrastructure Protection and National Protection and Programs Directorate (NPPD) of the Department of Homeland Security (DHS). His office is responsible for developing and sustaining critical infrastructure sector expertise, maintaining private sector operational awareness; fostering working-level relationships with industry, state and local government, and federal agencies representing vital infrastructure interests. Mr. Caverly is intimately involved in the management and completion of the National Infrastructure Protection Plan as well as supporting the Sector Coordinating and Government Coordinating Councils. In addition, he is the essential focal point in the information sharing tools and processes to facilitate a secure working relationship within and across the public and private sectors.

Mr. Caverly joined DHS at its inception, having previously worked for the Department of Energy (DOE) and its predecessor agencies for over 25 years. During his tenure at the DOE, Mr. Caverly was involved in a broad range of energy-related issues, including energy emergency planning, critical infrastructure protection, international energy security, domestic energy supply, nuclear safeguards and security, and national security policy and planning.

Mr. Caverly is a graduate of the University of Notre Dame and the Naval War College, and served for three years on the faculty of the Industrial College of the Armed Forces at the National Defense University.

***Scott Louis Weber, -Partner, Patton Boggs LLP Attorneys at Law***

Scott Louis Weber concentrates in complex litigation with an emphasis in general commercial and class action defense, white-collar criminal defense and internal investigations, toxic tort, and product liability. Mr. Weber has acted as principal or second chair in numerous trials in state and federal courts, as well as in arbitrations.

Mr. Weber has served as the Senior Counselor to the Secretary at the U.S. Department of Homeland Security, assisting the Secretary with policy development, operations, and legal analysis. His portfolio included infrastructure protection; preparedness; continuity of operations and of government programs; work with FEMA, DNDO, and S&T; emergency communications; strategic alliances; private sector matters; and academic outreach.

Mr. Weber comes to Patton Boggs from a leading international law firm, where he was a partner and a member of the Training and Career Enhancement Committee, Recruiting Committee, and Mentor Program. At another large firm, he negotiated and implemented settlements, took and defended scores of depositions, argued motions, and argued appeals. In addition, Mr. Weber has substantial experience in prominent pro bono matters, as he served as a member (for four years) and Chair (for one year) on the Supreme Court of New Jersey, Office of Attorney Ethics, and as District Ethics Committee, in Essex County, New Jersey. There, he prosecuted grievances filed against attorneys who were alleged to have violated the New Jersey Rules of Professional Conduct, and he tried cases before panels and Special Masters and presented arguments before the New Jersey Supreme Court. Mr. Weber has appeared in and written for several media outlets including CNN, MSNBC, Fox News (including "Your World with Neil Cavuto," "Studio B," and "Fox News Live Weekend"), CNBC's "Kudlow & Company," BBC Television (U.K. Domestic), Forbes.com, and *The National Journal*, discussing law enforcement and homeland security matters. Additionally, he is a regular contributor to the homeland security blog, Security Debrief. Mr. Weber was named to the *New Jersey Law Journal*'s "40 Under 40" listing in July 2006. "40 Under 40" honors NJ lawyers whose achievements in the workplace and in public service involvement distinguish them among their peers.

***Regina Phelps CEM, RN, BSN, MPA- President, Emergency Management & Safety Solutions***

Regina Phelps is an internationally recognized expert in the field of emergency management and continuity planning. With over 26 years of experience, she has provided consultation and educational speaking services to clients in four continents. She is founder of Emergency Management & Safety Solutions, a consulting company specializing in emergency management, continuity planning and safety. A partial list of clients include IBM, Levi Strauss & Co., Liberty Mutual, Northern Trust, VISA, Aegon, Triton Container, Intuit, First National Bank of Nebraska, First Republic Bank, Stanford University, Adobe, TransUnion, Monterey Bay Aquarium and the World Bank/IFC.

Regina has received numerous honors and awards including Business Recovery Managers Association Award for Excellence in Business Recovery Planning, College of the Sequoia's, Hall of Fame; Outstanding Employer by the ARC; Women Entrepreneur of the Year, San Francisco Chamber of Commerce; and the Champion of Small Business, Small Business Administration. Phelps was the 1991 Chairman of the Board of the SF Chamber, the first woman, the youngest, and first small business owner to ever hold that seat in the then 141-year-old organization.

***David Dlugolenski ,- Senior Manager, Office of Emergency Management The Port Authority of NY & NJ***

David Dlugolenski is responsible for coordinating all-hazard mitigation activities for the Port Authority of New York and New Jersey's Office of Emergency Management (OEM), with special emphasis on threats posed by potential terrorist use of weapons of mass destruction (WMD), business continuity and pandemic influenza preparedness. Accordingly, he serves as the agency's technical coordinator for all WMD related programs and represents agency interests in a variety of regional and national interagency WMD preparedness forums and planning initiatives. In addition, he leads the development of agency-wide WMD detection, response, and recovery capabilities by leveraging new technologies, driving WMD-related planning, training, and exercises, and maximizing grant funding opportunities. Dave Dlugolenski is responsible for the formulation and updating of a comprehensive all-hazard mitigation annex to the agency's emergency operations plan and oversight for agency-wide Pandemic Influenza and Business Continuity preparedness programs.

As the lead for all Port Authority Bio-defense efforts, Dave Dlugolenski coordinated, developed, and implemented a comprehensive biological incident response strategy and program that includes deployment of biological agent air-sampling systems, hazmat and emergency services response protocols, and partnering agreements with local, State, and Federal response agencies. Recognized as a subject matter expert at the national level for his experience and knowledge in biological incident response and restoration, he is often requested to participate in Federal working groups and has facilitated various U.S. Department of Homeland Security biological preparedness policy and planning efforts.

Dave Dlugolenski is a retired U.S. Army Military Police Lieutenant Colonel with extensive management and operational experience in public safety, facility security, law enforcement, fire fighting, emergency medical services, emergency management, and counter-terrorism. Following his military career, he served as a county-level Director of Emergency Management in Augusta, Georgia. While in that position, he was responsible for coordinating crisis management and response operations and the development and implementation of emergency preparedness programs and contingency plans, with special emphasis on ensuring an integrated response from both the public and private sectors.

***Anne Kirsch,-Assistant Chief Safety Officer, Metropolitan Transportation Authority Metro-North Railroad***

Anne Kirsch is the Assistant Chief Safety Officer with the MTA Metro-North Railroad. Anne has 23 years of Transportation experience. Starting her Railroad career in Risk Management, Anne's graduate studies in Occupational Health, allowed her to migrate into the Safety Department managing Occupational Health and Safety programs.

As the Department took on the role of Security, Anne's responsibilities grew to include WMD preparedness and is now also responsible for CBR detection, response and restoration. This combination of experience brought Anne to participate in many guidance development working groups, including the TSSSP R&D Working Group and APTA (American Public Transportation Association) Security Technology Working Groups.

As part of Anne's participation in these workgroups, she participated in the development of the Sector Specific Pandemic Preparedness Guidelines for Mass Transit and Railroads.

Points of Contact:

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The Transportation Sector  
America's Critical Infrastructure and Pandemic Influenza  
Participant Evaluation Form – June 11, 2009



*Please circle one*

	<u>Strongly Disagree</u>		Neutral		<u>Strongly Agree</u>
1. The exercise helped me think more clearly about what should be in my pandemic plan.	1	2	3	4	5
2. I have a better understanding of what the government response will be in the pandemic.	1	2	3	4	5
3. The exercise encouraged my participation.	1	2	3	4	5
4. The facilitator was effective.	1	2	3	4	5
5. The exercise met my expectations.	1	2	3	4	5
6. The panel discussion was very helpful.	1	2	3	4	5
7. Overall, what did you think of the exercise?					
8. What did you think was the most helpful?					
9. What could we improve on?					
10. In your opinion, what are the three most important actions that need to happen in order to prepare the nation and the transportation sector for a pandemic?					

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**Thanks for your participation and time today!**