

– DRAFT –

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Simulation Report – Condensed Version

# Influenza Pandemic Simulation

## Implications for the United States

Washington, DC  
27-28 March, 2006

*This document is confidential and is intended solely for the use and information of the client to whom it is addressed.*

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# Strategic simulations are a proven way to build plans for highly complex and interdependent issues, such as pandemic influenza

## WHAT IT IS

- ▶ Powerful process for thinking about the future which challenges conventional wisdom and allows participants to break with “known truths” and personal assumptions
- ▶ Encourages stakeholders to interact within a dynamic environment
- ▶ Allows analysis of alternatives under fire while compressing the decision making cycle
- ▶ Acts as a catalyst, invoking intuition and creativity to foster innovative strategic approaches to key challenges

## HOW IT WORKS

- ▶ Participants are assigned to teams representing key stakeholder groups
- ▶ Each team assesses the environment, develops a strategy, and implements it through specific initiatives and actions
- ▶ Teams interact through a series of activities (“moves”)
- ▶ Teams communicate with each other and learn what is happening as it happens
- ▶ Teams assess their own and other stakeholders’ actions, and work with the control team to determine their likely impact
- ▶ The control team ensures the entire simulation stays on track

## WHAT IT PROVIDES

- ▶ Although every simulation is different, there are several things that participants can expect to take away from the experience
- ▶ Their view of the world will change – it will provide intuition for an event outside their experience
- ▶ It will give a view of how the future might evolve and, more important, an understanding of the drivers of that evolution
- ▶ Participants will test their ability to coordinate with – and rely upon – other stakeholders
- ▶ They will be able to test and refine their organization’s preliminary preparedness and response plans

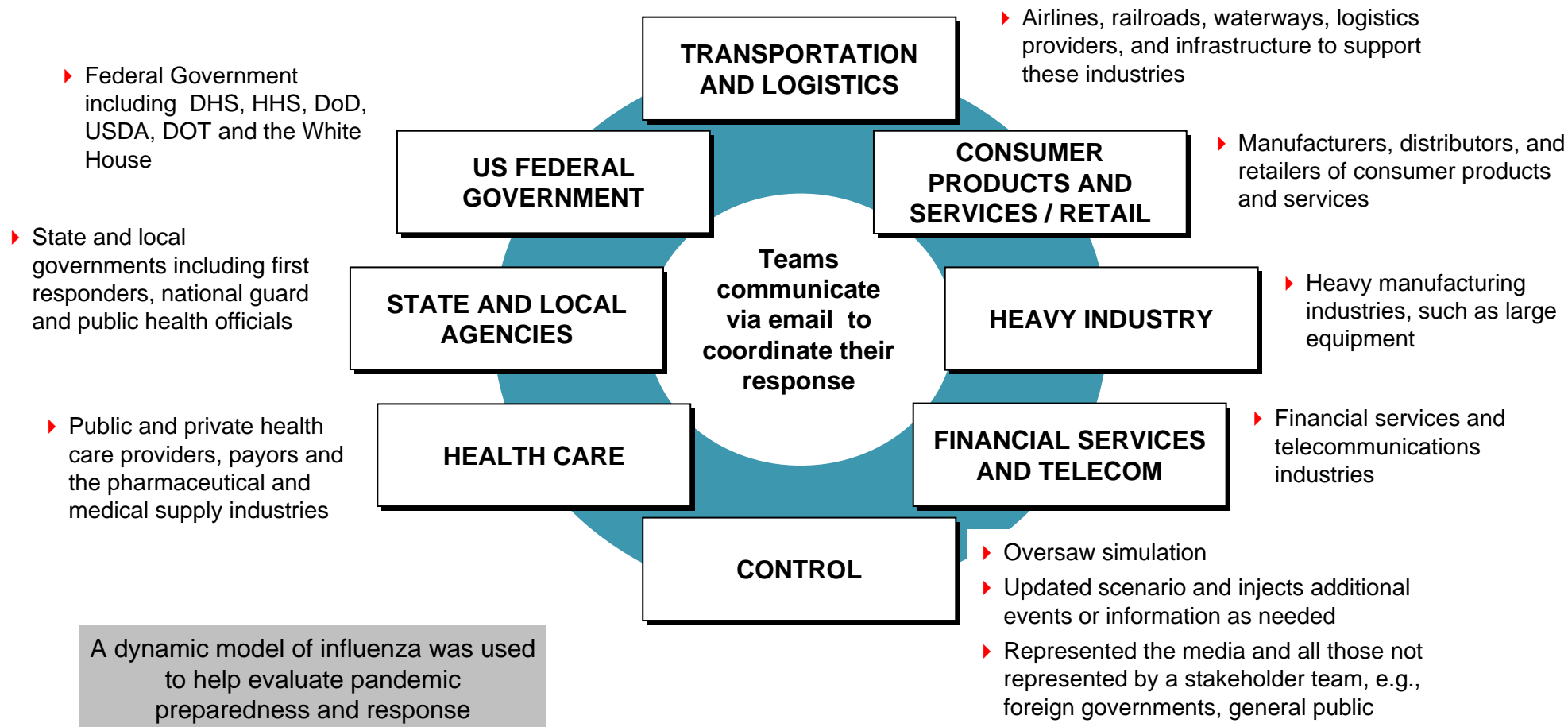
# **The Pandemic Influenza Strategic Simulation focused on improved public-private sector coordination over time in response a pandemic event**

## **Objectives**

- ▶ Assess impact of pandemic influenza on government and businesses, including supply chain, available work force, and demand
- ▶ Test response plans and underlying assumptions of government and business
- ▶ Identify approaches for stakeholders to improve their preparedness and strategies to include:
  - Resource allocation
  - Balance of preparedness and response
  - Response strategies
  - Stakeholder communication and collaboration

# Participants were grouped into teams representing federal, state and local governments, healthcare, and four core industry sectors

## Conceptual Simulation Design



***Participants included senior executives from business and government – with a mix assigned to each team***

# Three moves were conducted over two days to simulate an immediate, middle and long-term response, and identify next steps to prepare for pandemics

## MOVE 1 : IMMEDIATE RESPONSE

- ▶ Teams briefed on opening scenario.
- ▶ What are your concerns? What are your objectives and priorities?
- ▶ What are the immediate steps that you must take? How prepared are you?
- ▶ What are the near-term consequences of your actions?
- ▶ What other stakeholders must you collaborate with? How?
- ▶ What is your message? How will you communicate it? To whom?

## MOVE 2 : RECOVERY

- ▶ What were the projected impacts of choices made by you and other stakeholders?
- ▶ How have your priorities changed? What actions must you now take?
- ▶ How will you maintain or restore operations?
- ▶ What are the risks of taking these additional steps?
- ▶ What are the long-term consequences of your actions?

## MOVE 3 : PREVENT / MITIGATE

- ▶ What had the greatest impact on “your team” in the wargame? Why?
- ▶ What next steps does your team need to take to prepare for pandemic flu and mitigate its impacts?
- ▶ What do you need from others, including government, to complete these next steps?
- ▶ What are the barriers to implementation? How might they be overcome?
- ▶ How might government and business better collaborate to prepare for pandemic influenza?

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# Each move involved focus question to help stakeholders structure their analysis and decisions - Move 1 focused on initial responses, roles and responsibilities

## Move 1 Discussion Agenda

### Federal Government Team

- ▶ What is your role in the pandemic response? What are your priorities?
- ▶ How will you contain the pandemic? What steps are you taking?
- ▶ How will you ensure continuity of government and essential services?
- ▶ How will you keep your population informed? What is your message?

### State & Local Government Team

- ▶ What is your role in the pandemic response? What are your priorities?
- ▶ How will you contain the pandemic? What steps are you taking?
- ▶ How will you ensure continuity of government and essential services?
- ▶ How will you keep your population informed? What is your message?

### Healthcare Team

- ▶ How will you contain the pandemic and protect your workforce?
- ▶ What are your priorities for the care and treatment of pandemic victims (e.g., who, what, how)?
- ▶ How will you sustain operations (e.g., provide treatment, maintain manufacturing capabilities)?
  - Workforce
  - Facilities
  - Supply chain
- ▶ What and how will you communicate to the public?

### Business Teams

- ▶ What are the impacts on your business?
- ▶ How will you identify essential operations and employees?
- ▶ What actions will you take to protect employees and sustain operations?
- ▶ How will you keep your employees, vendors, and customers informed? What actionable steps should they take?

# Move 2 addressed how stakeholders would maintain essential services during the peak of a pandemic

## Move 2 Discussion Agenda

### Federal Government Team

- ▶ What actions are you taking to maintain government and essential services?
- ▶ What policies are needed to ensure delivery of critical services provided by the private sector (e.g., healthcare, food, utilities)?
- ▶ How are you collaborating with other stakeholders? What support do you provide? What do you need?
- ▶ How will you continue to keep your population informed? What is your message?

### State & Local Government Team

- ▶ What actions are you taking to maintain government and essential services?
- ▶ What policies are needed to ensure delivery of critical services provided by the private sector (e.g., healthcare, food, utilities)?
- ▶ How are you collaborating with other stakeholders? What support do you provide? What do you need?
- ▶ How will you continue to keep your population informed? What is your message?

### Healthcare Team

- ▶ How will you sustain operations (e.g., provide treatment, maintain manufacturing capabilities)?
  - Workforce
  - Facilities
  - Supply chain
- ▶ What guidance are you providing to the public regarding treatment and care? How do you communicate it?
- ▶ How are you collaborating with other stakeholders? What support do you provide? What do you need?
- ▶ What financial liability issues are you encountering? How do you mitigate?

### Business Teams

- ▶ What level of operations can you sustain (e.g., workforce, facilities, supply)? How? Does this differ for essential and non-essential operations?
- ▶ What support and guidance are you providing employees (treatment, flex work arrangements, comp and benefits)?
- ▶ How are you collaborating with other stakeholders? What support do you provide? What do you need?
- ▶ What financial and liability issues are you encountering? How do you mitigate? How does this differ for small, mid and large sized businesses?

## In Move 3, teams addressed breakout actions to improve overall pandemic response

### Question 1

- ▶ As your team, describe one breakout action you could take to improve response
  - What would make a difference? What specific actions could you take?
  - Who leads the effort? What stakeholders need to be engaged?
  - What are the obstacles to implementation? How can they be overcome?

### Question 2

- ▶ As any team of your choice, describe one breakout action you could take to improve response
  - What would make a difference? What specific actions could you take?
  - Who leads the effort? What stakeholders need to be engaged?
  - What are the obstacles to implementation? How can they be overcome?

### Question 3

- ▶ To help Healthcare, describe one breakout action you could take to improve response
  - What would make a difference? What specific actions could you take?
  - Who leads the effort? What stakeholders need to be engaged?
  - What are the obstacles to implementation? How can they be overcome?

## Overall several key themes emerged throughout the simulation

- ▶ A pandemic is unlike any other health or non-health related crisis
- ▶ The US healthcare system will be overwhelmed by the first order health challenges of addressing disease
- ▶ The Federal Government must be able and willing to lead and to provide concrete, strong direction
- ▶ All stakeholders will be faced with extremely difficult decisions which must be thought through ahead of time
- ▶ Workforce shortages will affect every sector and supply chains will be unstable or non-existent
- ▶ Targeted staff augmentation efforts across the health sector will be mandatory
- ▶ A “Manhattan Project” model is imperative for the acceleration of new vaccines and vaccine development techniques
- ▶ Mental health issues can and must not be ignored during and after a pandemic event
- ▶ Employers will need to develop, test and coordinate (within and between sectors) workforce/workplace strategies well in advance

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## Key lessons for the Federal Government Team included the need for consistent public information and pre-determined/approved decisions to ensure rapid response

- ▶ Continue pursuit of “playbooks” to include “first 10 plays” to ensure rapid response (including pre-scripted Requests for Assistance)
  - Identify in advance a toolkit of legal and regulatory changes that may be needed to ensure action
- ▶ Understand that the public is looking to the Federal Government for guidance as **the** trusted advisor
- ▶ A philosophy of “Act” versus “Respond” – act and adjust rather than wait and respond – is necessary across stakeholders
- ▶ Federal government should endeavor to partner with the national media to support the public
  - Public messaging and communication must be direct, specific, honest and frequent
  - A combination of action and reassurance for the public as necessary to avoid over-reaction and generate confidence
- ▶ Get key leaders across government and private sector immediately to ensure a collaborative and concerted effort

*Federal Government Team*

## **The state and local government team identified “the public” as their main responsibility and that pre-planning and coordination would be needed to meet citizens expectations and needs**

- ▶ State and Local governments are responsible for anticipating and managing public expectations and needs
- ▶ Need for a holistic, actionable plan with representation from other sectors early in the planning process (NOW) to communicate issues
- ▶ Determine points of failure early and mitigate up front
- ▶ Become a significant coordinator
- ▶ State and Local governments must work with other sectors to attain full spectrum information
  - Need to be credible voice of expertise and leadership
- ▶ Health component ramps up quickly but government needs to address all of the social agencies (e.g., Law, Food, Transportation, etc)

# **The Healthcare sector will be the most taxed and scrutinized group during a pandemic and has significant disparate responsibilities**

- ▶ Regular communication is essential
- ▶ Surge capacity contingencies must be identified now and limitations must be concrete and understood
- ▶ Just in time delivery paradigm is a significant vulnerability that must be addressed
- ▶ Training non-traditional workers must be addressed for pandemic situations; need for flexibility of credentialing
- ▶ Collaboration and coordination is critical when developing an emergency plan and response activities
- ▶ Ethical issues arise and must be addressed in planning stages pre-pandemic to reduce impact on healthcare workers
- ▶ Mental health support will be required and must be included in planning
- ▶ A strong, detailed recovery plan is required

## **The Financial Services/Telecom team identified the need for consistent communication, flexibility and proactive planning as key practices needed during the pandemic**

- ▶ Keep the people central – “all crises are local”
- ▶ Be ahead of the curve – plan, detect and respond
- ▶ Minor problems become big problems – Murphy rules
- ▶ Action is not enough – it is about communication of actions – an information vacuum fosters rumors
- ▶ Timely response of the government is critical to avoid industry leading and subsequent disjointed responses
- ▶ Paradigm shift for emergency management is required including a pre-prepared “push package”
- ▶ Streamline/flexible emergency processes – cover legislative and legal risks
- ▶ Need to exchange information with other groups, parties, etc - the horizontal integration – collaboration and interrelationships are key
- ▶ To know what you owe others and what they owe you – there is interdependence with others – relationships

# **Heavy industry recognized their unique and critical role in supporting infrastructure throughout all phases of pandemic reaction, response and recovery**

- ▶ Leverage industry associations to effect change (power in numbers)
- ▶ Need to identify centers of excellence and industry champions
- ▶ Overarching goal: How do plans effect people?
- ▶ Preparation education, preach personal preparedness
- ▶ Don't just plan for the disasters, but plan for the recovery
- ▶ Put the plan into action

# **The Transportation and Logistics Team identified the need for prior planning, with or without government guidance, and the need for a redesign of the National Response System**

- ▶ The Transportation and Logistics industries should not simply wait for the Government to take action
- ▶ Realistic expectations (e.g. reliance on infrastructure)
- ▶ Awareness of individual responsibilities (need to educate the Public about responsibilities)
- ▶ The Federal Government needs to educate Industry and the public, and clarify incident authority and response structure (including the Federal, State and Local Governments), beginning with a statement from the President
  - Explain and Educate because the National Response approach to a pandemic is unclear/unknown
  - Perceived lack of clarity around roles, responsibilities and leadership in response to pandemic
  - How will the response be coordinated? Clarity around prioritization
  - Who will call Industries for help? Current structure does not enable response
- ▶ Communicate steps that individuals can take proactively
- ▶ Redesign the National Response System from a blank slate
  - Incremental gains from current system, but could have dramatic gains by redesigning the entire system with focus on predetermined roles, responsibilities, communications plans
  - Larger focus on private sector involvement

# **The Consumer Products and Services Team identified the need for prior planning and collaboration to provide information and essential items to the public during the pandemic**

- ▶ Surprised by assumptions of Federal government and slow response rate
- ▶ “Just in Time” model of most businesses is contrary to what you need in any crisis situation that impacts the supply chain
- ▶ Need to maintain the integrity of the supply chain for essential items (i.e., oxygen, food, water, energy, shelter) to preserve normal society
- ▶ Need for cross-industry collaboration and multi-disciplinary teams (including private industry and government) to plan and be ready to execute
- ▶ Need to prepare before pandemic crisis occurs
- ▶ Need for strong, honest communication to public
- ▶ Need to prepare plans for Avian Flu in US short-term

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# The simulation elicited the following key observations and recommendations from the stakeholder groups

- ▶ Measured by either scale or complexity, an influenza pandemic will be unlike any crisis today's government or business organizations have ever prepared for or experienced.
- ▶ The U.S. healthcare system will likely be overwhelmed by a prolonged surge of a severely ill population.
- ▶ A pandemic will raise a number of complex and difficult bioethical decisions regarding provision of care.
- ▶ Special circumstances during a pandemic may require liability relief within the healthcare system and other sectors.
- ▶ Stakeholders looked to the Federal government for the active exercise of guidance and policy.
- ▶ Participants advocated a high-priority national effort for the rapid development of vaccines
- ▶ Special care will be needed to protect the mental health of the population during and after a pandemic
- ▶ Special care will be needed to protect the mental health of the population during and after a pandemic
- ▶ Participants affirmed that continuity of commerce, trade, and transportation will be essential to maintain the economy and welfare of the U.S. population.
- ▶ Employers must address workforce/workplace issues well in advance.
- ▶ A severely depleted workforce will require creative, cross-sector sourcing strategies to maintain production and delivery of essential goods and services
- ▶ Leaders must prepare to communicate developments, policies and guidance in ways that encourage compliance, cooperation, empathy, and courage.

# Facilitation Team Observations and Final Remarks

## ▶ Learnings (David Nabarro):

- Focus on people more than the virus – *plan not just for disaster, but for recovery, “it’s about the people, dummy”*
- Tough prioritizations need to be made – *triage recommendations, essential resource allocations*
- Rapid horizontal decisions are needed – *whether Apollo or Manhattan, massive cross-cuts will be required*

## ▶ Team Observations and Insights:

- Educate, communicate, and activate – *“barefoot doctors”*
- Political concerns must not be overlooked – *“emergency leadership”*
- Socio-economic issues will pervade the scenario – *mental health, death & dying*
- Ethical choices will drive much of what we do – *triage pre-planning*

## ▶ Areas for Additional Emphasis:

- The military process ... decide, detect, act ... applies – *“act rather than respond”, “synchronize the switch”*
- Including the private sector and the public in the planning process is key – *collaborate and cooperate across all stakeholders, including non-traditional ones*
- Reluctance to give up “normalcy” can cripple our decision making – *“emergency leadership”, Government/Industry Roundtable, “ ... prepare for what will become”*