Private Sector Preparedness  
(18 April)

**Synopsis**

Over the course of the past five years, there has been substantial investment by the private sector to plan and prepare for an influenza pandemic. This paper attempts to review the context which resulted in these investments, the achievements and lessons learned from the work involved, what gaps continue to exist as well as what actions could strengthen planning and preparedness for future and other emerging threats.

Different outbreaks of infectious diseases in recent years – particularly Highly Pathogenic Avian Influenza (HPAI) H5N1 and SARS – resulted in a new understanding of the potential significant and systemic impact that could be felt around the world. This was particularly recognized in the private sector, where potential serious economic implications (as well as possible opportunities) became clear.

As a result, a major achievement of many large private sector businesses was the prioritization of pandemic preparedness, with serious investment in establishing or improving business continuity plans. Coupled with this was the development of internet-based information and tools for strengthening such planning. The impacts of this work were not limited to preparing for a pandemic; the experience gained through these pandemic planning and preparedness efforts helped strengthen general business reliance, and examples of how such planning was used for other disasters were noted.

There were many lessons learned by the private sector in taking pandemic preparedness work forward, several of which are highlighted in this paper. The commitment and investment by senior management was noted as a critical success factor for successful planning, as was the importance of avoiding assumption-based planning (and instead utilizing methods which will facilitate planning for a range of situations, such as through scenario planning). Knowledge of critical stakeholders, particularly for securing a business’s supply chain, was highlighted, as was the fact that such planning can also sometimes result in the identification of potential new opportunities for a given business. The importance of testing – and amending – plans through simulations was identified as a very important tool for improving plans.

The avoidance of complacency was identified as one of several potential gaps for private sector preparedness efforts. Similarly, the challenges associated with the cost, storage and distribution of pharmaceutical countermeasures was noted as a problem, as was the vulnerability of many businesses to possible internet/ICT failures. The need for additional support to enable small and medium-sized businesses to better prepare for disasters was also highlighted as needing attention.

In reviewing the role of the private sector in whole-of-society collaboration, it was recognized that there is significant scope for strengthening collaboration between governments and businesses, and that governments can do more to engage businesses in policy-making processes.
### Key lessons learned

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<th>Communication</th>
<th>Good communication and clear direction from the top are important.</th>
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<td>Simple, repeating, culturally appropriate messages on the nature of the threat and what actions individuals should take are important.</td>
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<th>Planning</th>
<th>A significant level of commitment and investment by senior management must be secured early on in the planning effort.</th>
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<td></td>
<td>Avoid assumption-based planning. The time, place and severity of the next pandemic cannot be predicted. Use formal scenario planning methods which facilitate planning for a range of situations.</td>
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<td>Scenario planning-based approaches to crisis management can be integrated within normal business planning imperatives so they generate explicit business opportunities</td>
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<td>The process of planning is as valuable as the plan itself – and produces savvy teams that can pivot and respond appropriately to surprises.</td>
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<td>Detailed planning templates embedded within internet-based collaboration tools enable organisations to plan large projects via the internet in a customisable, flexible, structured and coordinated way.</td>
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<td>Planning templates should be delivered through software platforms that are already in use by the people doing the planning.</td>
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<td>Simulations should be performed annually to test, amend and improve plans.</td>
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<td>In planning for infectious disease, businesses must concern themselves with the impacts of fear.</td>
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<td>Surge capacity should be installed to handle sudden surges in demand for services or information. Planning for the acquisition and use of scalable case management systems over the internet is advisable.</td>
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<td>Plan how to return to business as usual in the post-crisis period.</td>
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<td>The implications of remote working require detailed planning.</td>
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<td>More work is required to mitigate potential failures in internet and ICT systems.</td>
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| Supply chain | Understand the needs, preparedness and vulnerabilities of critical stakeholders and suppliers for securing the global supply chain. Driving business continuity through the supply chain is important. |

| Employee relations | Identifying and responding early to threats and satisfying staff demand for information bring benefits in employee satisfaction, morale and retention. |

| Training | Train staff to have the skills to cover other roles |

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<th>Public-private partnership</th>
<th>Private companies and public health agencies should dialogue to identify ways to work together to address the threat of emerging infectious disease.</th>
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<td>It is not helpful to prepare exclusively for the single threat of pandemic. Planning and preparedness for emerging disease should be incorporated into integrated all-hazard business continuity and crisis management plans. Public health agencies and the private sector should partner to develop tools for all-hazard planning.</td>
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<td>Private and public sector should partner to develop standardised approaches for decision-making on acquiring, storing and distributing pharmaceutical countermeasures.</td>
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<td>WHO should solicit participation from the private sector to design a pandemic alert system to help private sector decision-makers</td>
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| SMEs | There is a need to provide additional support to SMEs to strengthen their preparedness. |
**Introduction**

In the 5 years from 2004 to 2009, the scale of private sector investment directed toward advance preparations for the uncertain threat of pandemic influenza was virtually unprecedented. But how effective were such investments? Did the steps taken make any real difference, or did much of what was done turn out to be unnecessary and a waste of scarce and valuable resources?

Unfortunately, in arguing from present circumstance we can never completely untangle the fundamentally hypothetical “what would have happened if we had not….”, and as a consequence, there will always be doubt about the effectiveness and wisdom of measures taken in advance to avoid or mitigate such risks. But what we can say with confidence is that at that particular time, the threat of pandemic influenza had characteristics that motivated whole societies to undertake serious efforts to avoid or mitigate the potential impacts well before the threat materialized. What was it about the circumstances leading up to the 2009 pandemic that motivated such a substantial societal-wide response? Are there characteristics about the emergence, recognition, and evolution of the threat of influenza pandemic that might help to galvanize future global commitments – especially private sector commitments -- toward mobilization in advance of other infectious diseases, or entirely unrelated but analogous threats?

**Infectious Disease as a Global Systemic Threat**

For most of human history, infectious disease has been a leading cause of death and a major determinant of life expectancy within human populations. However, the twentieth century witnessed a dramatic change in attitudes about the character of this threat. As the century unfolded, continued economic development fed explosive growth in public health investment and infrastructure which -- coupled with advances in scientific understanding and the advent of antibiotics and vaccines -- transformed the character of the infectious disease threat. So much so, that in 1969 the U.S. Surgeon General testified before Congress that humanity might soon "close the book on infectious disease”.

![Infectious disease mortality in the U.S., 1900 to 1996](source)

However, in direct contradiction to this expectation, the last quarter of the 20th century witnessed the emergence of an unusual number of new and serious infectious diseases threats to human and animal populations, including BSE, HIV/AIDS, West Nile, H5N1 influenza and Ebola, among others. This rash of new zoonotic diseases seemed to herald something more than simply ongoing improvement in our surveillance and detection capabilities. The underlying rate of new disease emergence appeared to be growing in step with human and livestock populations and their growing contacts with wildlife and wild lands. Growth in legal and illegal international trade (particularly in livestock, wildlife and bushmeat) and intensive livestock rearing practices (especially in less developed regions of the world) were implicated as potential factors in the observed increase in new disease emergence.
Moreover, the public health implications from an increase in the number of new infectious diseases are not the only troubling trend associated with this phenomenon. The scale of the economic impact disease outbreaks are having on our increasingly interconnected and globalized economy also appears to be growing (see below chart\(^1\)).

\[\text{Economic Impact of Selected Infectious Disease Outbreaks}\]

\[\begin{align*}
\text{1994} & \quad \text{BSE, UK, $5bn} \\
\text{1995} & \quad \text{Foot & Mouth, Taiwan, $5bn} \\
\text{1996} & \quad \text{Nipah, SE Asia, $9bn} \\
\text{1997} & \quad \text{Foot & Mouth, UK, $6bn} \\
\text{1998} & \quad \text{Lyme Disease, US, $2bn} \\
\text{1999} & \quad \text{BSE, Canada, $5bn} \\
\text{2000} & \quad \text{BSE, US, $3.5bn} \\
\text{2001} & \quad \text{L. Cell, US, $1.8bn} \\
\text{2002} & \quad \text{H1N1, Worldwide, $47bn} \\
\text{2003} & \quad \text{H5N1, Avian Flu, Worldwide, $5bn} \\
\text{2004} & \quad \text{Foot & Mouth, UK, $5bn} \\
\text{2005} & \quad \text{BSE, US, $2.2bn} \\
\text{2006} & \quad \text{SARS, China, Hong Kong, Singapore, Canada, $33bn} \\
\text{2007} & \quad \text{MERS, Middle East, $50bn} \\
\end{align*}\]

\(\text{Figures are estimates and are presented as relative size.}\)

**What Made the Threat of Pandemic Influenza Appear So Significant in 2004?**

Against the backdrop of these trends, a new influenza virus – Highly Pathogenic Avian Influenza (HPAI) H5N1 – burst on the scene in 1997, when an outbreak of the virus in birds near Hong Kong spilled over into the human population, infecting 18 people and causing 6 deaths. The extremely high virulence of HPAI H5N1 in birds, and the ability of the virus to infect and severely sicken humans, pushed public health officials in Hong Kong to take swift and dramatic action, and to ring a major global alarm, warning that this new virus might pose an especially serious danger.

Then, for uncertain reasons, H5N1 disappeared just as suddenly as it had emerged. The virus would remain hidden within wildlife reservoirs for the next 7 years before once again bursting into the limelight in Asian livestock populations in 2004. In the interim – and just one year prior to HPAI H5N1’s re-emergence – Hong Kong witnessed what would turn out to be a second major global alarm – the SARS outbreak of 2003.

\(^1\) © bio-era LLC 2011. All rights reserved. “The Economic Impact of Selected Infectious Disease Outbreaks” by J. Newcomb, T. Harrington, S. Aldrich February 2011 bio-era LLC for the Canadian Health Ministry. Calculations based on information available between 1995 and 2009 from government and academic studies, news reports, and direct communications with health experts.
Ironically, as an infectious disease emergence event SARS was relatively small, amounting to less than 8,100 cases and 744 fatalities within the nine months of the outbreak (November 2002 to July 2003). But what SARS lacked in human case count, it more than made up for in economic impact.

SARS was an economic tsunami – having a $30 - $50 billion impact over a period of just a few months. For instance, airline travel into Hong Kong plummeted -- disrupting just-in-time manufacturing supply chains, along with hotel occupancy rates. The Canadian GDP dropped by more than four percentage points in one quarter. The chart indicates the impact SARS had on the Canadian economy.

The SARS outbreak was a watershed because for the first time, the vulnerability of the modern global economic system to catastrophic shock coming from emerging infectious disease was laid bare. It quickly became clear that the underlying interconnected nature of human and biological systems meant that such a shock should not only have been expected, but that the very nature of continued growth in human and livestock populations, trade, and economic development would increase the linkages and interdependencies within the underlying global human/biological network and intensify the risk of experiencing such shocks in the future.

With the SARS experience still fresh in mind, HPAI H5N1 re-emerged in 2004; while initial outbreaks affected wildlife and livestock almost exclusively, the economic impacts were nonetheless dramatic. But as the outbreak continued, the number of lethal spill-over infections affecting people who came in close contact with infected birds began to mount -- along with concerns that a highly virulent human influenza pandemic might develop as a result. In addition to a growing tide of articles and public health warnings in the general media, a flood of economic analyses, reports, and conferences appeared in business media, warning businesses to prepare for the coming pandemic. From early 2004 into 2006, this steady drum-beat of public health warnings and credible, economic and business oriented analysis on the emerging H5N1 crisis cemented the seriousness of the threat in the minds of global business leaders and catalyzed commitments to take real action in response. Given that subsequent private sector efforts and investment in response to the threat posed by pandemic influenza totaled many billions of dollars – what was achieved, what was learned, and what critical gaps in preparedness remain?
Key Achievements in Private Sector Pandemic Preparedness

1. Prioritization of Pandemic Preparedness, and Development and Improvement of Business Continuity Plans (BCPs)

By the end of 2004, many global business leaders were convinced of the seriousness of the threat posed by HPAI H5N1, and had begun to turn their attention to planning and preparing. Global corporations soon realized that the requirements of planning for global business continuity and employee health and well-being under conditions of pandemic influenza was a much more significant challenge than had initially appeared, and would require the involvement from virtually all business functions of the organization, and the combined efforts of a large number of global managers and employees. And moreover, if a company wanted to secure its global supply chains and ensure business continuity, then the needs and preparedness of employee dependents, vital suppliers, and key contractors would also have to be taken into consideration. In short, the scale of the planning effort required was on par with the effort and investment needed to prepare an organizations’ strategic business plan, and would require the same scale of commitment and leadership from top to bottom that attends to such a planning effort.

As a consequence of the prioritization of pandemic preparedness, significant progress was made during the last several years with the development and improvement of business continuity plans. While the motivation behind these efforts came from preparing for pandemic threats, the development and strengthening of the BCPs ultimately resulted in many businesses being better prepared to face a host of other threats, and thus more resilient to potential disruptions in general.

“…When we began to look into this, it really led to an alignment of activity, if you will, in that as we talked about pandemic planning,…, we found that some entities within our organization were working on disaster recovery planning, others on crisis management planning, and others on enterprise risk management, but they were all acting independently. This led to a great opportunity to align everybody, so that whatever we did with pandemic planning, it could serve as a foundation to benefit all of those other areas as well…”

David Parsley, Senior Vice President, Supply Chain Management, Applebee’s

Pandemic planning grew to be understood as a form of strategic risk management planning, which seeks to functionally integrate all assumptions and response actions within a given set of contingent possibilities, or “scenarios”. The below graphic depicts this idea.
Traditional crisis management and strategic planning methods and techniques were adapted and leveraged to help meet the unique needs of planning for pandemic. Major consulting firms and business advisories, including Deloitte Consulting, IBM, Booz Allen Hamilton, The Conference Board, International SOS, and others quickly developed practices to assist major corporations with their pandemic planning and preparedness efforts, with the result that new tools for helping global corporations plan and prepare quickly emerged.

While largely inspired by the outbreaks of SARS and HPAI H5N1, the H1N1 2009 pandemic further prompted the drawing up or updating of companies’ business continuity plans. A March 2010 study by the Chartered Management Institute in the UK identified that 79% of managers who activated BCPs consider that they effectively reduced the impact of the disruption of business². This research also indicates that there was notable recent growth in the involvement of Human Resources in BCPs, driven by continuity planning for a pandemic. The implied recognition that people matter in Business Continuity Management is an encouraging development. Research has also identified that the process of planning to be as valuable as the plan itself – and helped to develop teams that can respond appropriately to surprises.

“The most important thing to come out of this work was more complete and robust business continuity plans...”

Jason Grosz, Human Resources Manager, Ecolab

Case Study: GlaxoSmithKline (GSK)

GlaxoSmithKline (GSK) is a global, multi-national pharmaceutical corporation with over 100,000 employees operating in 137 countries. The company has a substantial business in manufacturing and distributing influenza vaccines and anti-viral medicines which are critically important countermeasures in response to influenza pandemic. Since 2003, the company has invested well over US $2 Billion toward expanding manufacturing capacity and research in these two areas. In addition, in 2004 GSK initiated a major internal effort to enhance GSK’s plans and global preparedness to meet the challenges posed to business continuity and employee protection in response to a pandemic threat.

GSK developed a flexible response strategy around a broad range of possible scenarios. Plans and guidance were modified throughout the pandemic as new public health knowledge emerged. Though the company’s initially response was triggered by WHO Phase, the company found it needed to develop new tools to provide guidance appropriate to local conditions. The GSK Issues Management team created a “Decision Guide” for local leadership to use in risk assessment. Factors used by country GSK teams to gauge impact or severity were:
- Secondary attack rates in community near GSK staff (new cases occurring in 1-2 weeks in country or region)
- GSK flu related absence rates (due to illness, school closure)
- Case fatality ratio in country (deaths/100)
- Significant government action (countrywide school and public closures, AV dispensing, border closure)
- Effectiveness of local public health response (national and local where applicable)

Based on a score derived from self-assessing local conditions, appropriate guidance was provided for three different levels of severity regarding the local outbreak. GSK country leaders worked with their local GSK medical expertise to rate their local impact which corresponded to recommended actions.

GSK tracked and charted local scores on a color-coded global map so that GSK leadership could follow and understand the changing status of local conditions globally at a glance. This method enabled GSK to gauge the medical, community and business operational impact of flu to trigger appropriate actions instead of relying on global pandemic alert phases which might not match the local experience. This also enabled more efficient, two-way communications from the Corporate Crisis Management team to all GSK Leadership -- enabling local needs to be reported and supported in areas of severe outbreak.

“Developing the appropriate triggering mechanisms for action as a pandemic progressed proved to be challenging. We, like many others, tied actions in our plans to the global phases of a pandemic as defined by the WHO. This worked in principle but not in practice. We found that the better tool for triggering action was the local severity; what was the actual experience in your country and community to drive appropriate actions. This is why the “Decision Guide” became invaluable.”

Jack Holt, Director of Global Crisis & Continuity Management, GSK

GSK’s Crisis Management and Business Continuity Plans ensured the company continued to operate effectively throughout the pandemic. The company was “early and aggressive” in providing all GSK employees and their family members with trusted, basic information on the nature of the pandemic threat and what to do about it.

“We were ready to take advantage of those “teachable moments” during the H1N1 crisis... Robust and simple education materials for employees greatly reduce the “Fear Factor” and the potential for an irrational response during a public health emergency. Global companies
affected by global crisis events must provide a simple way to manage communication between company and local teams ‘in the battlefield’.”

Jack Holt, Director of Global Crisis & Continuity Management, GSK

The company also developed systems for enhanced cleaning, social distancing, absence management, travel health, and immunization which have been retained and used in the company’s seasonal influenza control efforts.

GSK also created a Crisis and Continuity Management Center of Excellence to provide ongoing expertise, tools, training and global “readiness” monitoring capability to ensure preparedness and rapid response to future pandemics, crisis incidents and other business disruptions. GSK has specifically taken note of where their pandemic preparedness work has enabled improved response to other crises, including:

• **Global travel disruptions (2010 volcanic ash cloud):** In preparing for a pandemic GSK improved its ability to support business travelers. The company was able to provide support to the approximately 1500 employees affected by this extended air travel closure due to the 2009 volcanic eruptions in Iceland.

• **Civil unrest (2010 Thailand, 2011 Tunisia):** The corporate network of integrated crisis management and business continuity plans helped establish a communication framework for use across the company’s various country and site operations around the globe.

• **Chile and New Zealand Earthquake (2010):** The global network for supporting country crisis response efforts for a pandemic was utilized to provide resources and support to local teams.

• **Seasonal Flu programs:** All materials for employee education and communications continue to be used for seasonal flu to manage locally severe flu outbreaks that may cause a disruption. The pandemic also led GSK to fund and implement a global Employee Assistance Programme to provide counseling and emotional support to managers and employees during crises.

GSK cites partnerships with government agencies, especially Ministries of Health, as vital to success.

“Our ability to interact rapidly and effectively with regulatory and recommending bodies such as WHO, the European Medicines Agency (EMA), CDC and at global and national levels was vital as the H1N1 pandemic developed.”

Jack Holt, Director of Global Crisis & Continuity Management, GSK

GSK found that the complexity of plans proved to be cumbersome in helping teams respond, and is currently addressing the complexity of plan documents by developing internal resources to reduce the local costs of maintaining plans and team readiness, and improve plan usability when disruptions occur.

2. **Development of Internet-based Information and Tools**

A critical “tool” for companies in planning and preparing for pandemic influenza proved to be the internet. In a survey of businesses conducted for this exercise, multiple company respondents cited the critical importance of information made available through the internet by key organizations, such as the World Health Organization (WHO) and national health agencies, as a key to the success of their own communication efforts around pandemic influenza. (Details of the survey can be found at Annex 1, attached.) The independent credibility and timely nature of WHO communications were repeatedly cited as critically important.
Beyond simple access to credible, useful information, the internet also plays an increasingly important role in enabling companies to organize and empower employees to work together and to collaborate directly with partners, vendors, and suppliers – in order to plan and implement actions. Organizations and government agencies such as the WHO and the US CDC provided helpful guidance on the steps companies needed to take in order to better prepare their organizations for pandemic.

The checklists published by the WHO and the CDC on their websites to help businesses prepare for pandemic influenza were often adapted and extended by other actors familiar with the planning environment inside large global companies. On the basis of the checklists, consulting firms created more detailed planning templates that could be directly embedded within internet-based collaboration tools and platforms. One such example is the partnership formed between the consultancy firm Bio-Era and the internet enterprise software company Powersteering Software, makers of a leading web-based project portfolio management platform. The Powersteering platform enables organizations to plan and manage the implementation of very large, complex projects via the internet. Such systems enable large organizations to address the immensely complex nature of pandemic planning in an easily customizable, flexible, but structured and coordinated way. Moreover, the experience gained from such efforts can be easily and repeatedly leveraged by turning what works best into re-useable templates that can be stored and if needed, rolled out and re-used later. Moreover, the workspaces in such templates can be pre-populated with resources -- such as software applications, documents, website links, and even people -- that are appropriate and relevant to accomplishing any particular task.

**Key Lessons Learned by the Private Sector**

1. **Understanding that Pandemic Influenza and other Infectious Diseases are Systemic Threats** – The first and in some ways most important lesson learned by private sector participants about pandemic influenza and other emerging infectious diseases is that they can pose a serious systemic threat to businesses and to society as a whole. In part, this is due to the nature of highly transmissible infectious disease, which can spread around the world rapidly, and indiscriminately disable significant percentages of a population through serious illness, death and their consequences. While the human toll of a rapidly spreading pandemic is by itself, a threat to the smooth and continuous operation of a business, the character of the threat is further amplified and complicated by the effects of fear, which can spread much faster than the disease itself, and generally will cause much greater damage and disruption. In planning and preparing for the impacts of infectious disease, businesses must concern themselves not only with the human toll of the disease, but also with the impacts of fear, and the actions taken in response by governments, other institutions, and the public-at-large.

2. **Senior Management Commitment to -- and Investment in -- Preparedness** – If private sector actors are to develop effective, flexible, well-integrated plans to ensure the continuity of their business operations and the health and well being of their employees and dependents, then a significant level of senior management commitment and company investment is required to accomplish the task. Given the need to integrate response plans across most functions and locations within the company, the effort required can be on par with what is required to produce a company’s principal strategic and operational business plans. **The necessary senior management commitments to support and resource (if not lead) any such process must be secured early-on in the planning and preparedness effort.** This is especially true for large, global or transnational corporations, where a significant investment of human and material resources over an extended period of time will be required for effective pandemic planning and preparedness. The committed leadership and enduring support of senior management is a critical
planning and preparedness requirement – at least according to the pandemic planners we surveyed and interviewed and who cited the importance of such commitments to the success of their efforts.

3. **Guard Against Assumptions About the Future!** Pandemics are fundamentally unpredictable, and can emerge anytime, anyplace. Despite the tremendous concern and widely-held view that HPAI H5N1 would evolve into the next pandemic influenza -- probably somewhere in Asia -- reality has so far confounded such expectations. Instead, the first case of novel H1N1 influenza emerged suddenly in Mexico, and seemingly from nowhere. The rapid subsequent spread of the disease led the WHO to declare a global pandemic less than three months later. Ironically, many businesses found they had planned and prepared for an HPAI H5N1 pandemic emerging in Asia, only to see plans based on such assumptions prove less than helpful when novel H1N1 emerged in Mexico. A major lesson of the recent H1N1 pandemic is that **the time, place and severity of the next pandemic cannot be predicted.**

Another element that should be noted is that given the recent H1N1 pandemic, many sectors of society (including the private sector) now seem to be discounting the threat posed by emerging infectious disease – which has not declined. Many are prone to the false assumption that having just experienced a pandemic, the threat is reduced and we do not need to be concerned about another pandemic for many years. **Businesses should jealously guard against the tendency toward complacency,** and the equally dangerous assumption that any given emerging disease or pathogen will evolve into the next pandemic.

“We used a scenario-based approach and found that very useful”
Gil Meyer, Director of Global Issues and Crisis Management, DuPont Corporation

4. **Leverage Existing Business Planning Methods -- Formal Scenario Planning**
Linked to the preceding lesson, one method for addressing the fundamental uncertainty surrounding a crisis before its emergence (i.e. a way to avoid a wrong or antiquated assumption) is through the use of formal scenario planning methods, as developed at Royal Dutch Shell in the 1970s. These techniques can help employees and other stakeholders grasp the most important contingencies pertaining to a complex, dynamic event. Scenario-based approaches are also attractive because they can be structured to reflect an organization’s particular concerns and interests, including opportunity-driven business planning. When used across locations and functional areas within an enterprise, such a framework can help to ground decision-making within a commonly held logic appropriate to the business. Bio-era’s generic scenarios logic for infectious disease outbreaks is given below:
This kind of general logic or framework can be quickly extended and/or customized to meet the particular circumstances of a specific emerging disease threat, or the context and interests that apply to any given company.

*The Crisis Planning Lifecycle*

Another well-known approach leveraged by global corporations is to follow the generalized life cycle of crisis planning, which begins with alignment and commitment (see diagram below), and cycles through a series of phases ending with post-event evaluation. Many companies utilize such crisis management efforts, which follow the typical life cycle for crisis management planning. These efforts usually begin with identifying an important emerging issue or threat, and most large companies have on-going, formal screening efforts in place to do this. Once an emerging issue or threat is identified, the scope of the planning effort (if any) required in response must be defined, management support garnered, and the organization aligned to support the effort with the resources required. Once this is achieved, the next task is to learn more about the nature of the issue or threat, and the risks it poses. The strategic planning techniques of developing formal scenarios can be effectively deployed at this stage -- both to guide deeper learning about the issue, and to generate useful scenarios and scenario frameworks as guides to future decision-making.
A third stage of development entails creating signposts and triggers for various planned actions to be taken under various scenarios, and codifying plan materials to support outreach and communications. Usually, there are pre-event actions that need to be taken prior to a crisis. These actions may include communicating the scenarios – both within the organization and to other stakeholders, driving forward the process of communication with relevant stakeholders, implementing immediate action tasks, such as stockpiling of countermeasures, preparing particular functional sub-strategies, and periodically testing and refreshing plans through tabletop exercises or simulations. Executing on the plan itself requires both tracking events to keep you and others informed of where things stand, implementing planned actions triggered by unfolding events, and feeding back information to all stakeholders through pre-planned channels. Finally, once the crisis has passed, businesses should look back and assess the performance of their plans and strengthen and update them as required.

Case Study: Unilever, Indonesia

Prior to the advent of avian and human influenza, Unilever’s office in Indonesia established a Crisis and Management Team (CMT). When the first cases of avian influenza were detected in Indonesia in 2004, pandemics were added to the types of emergencies handled by the CMT, and the implications for employee health and productivity discussed at length. In 2007, Unilever Headquarters issued guidelines to all its country offices to develop pandemic preparedness plans. Shortly after, a joint simulation workshop that involved HQ staff, senior Indonesian staff and board members was conducted in Indonesia. This became the springboard for a formal pandemic plan.

WHO and local government data and guidelines are a critical component of Unilever-Indonesia’s decision-making process, as the plan was designed in alignment with WHO’s declared pandemic phases. For instance, following declaration of Phase 6 of the H1N1 pandemic in 2009, Unilever distributed Tamiflu and rapid test kits to employees, along with guidance for home preparedness. Measures were instituted at Indonesian factories, including body temperature checks and hand-washing upon entry. Unilever’s marketing specialists made this a fun activity with special stickers on the name tag and a chocolate and adjoining handwashing message for the employee. Further guidance was issued to send
any employee exhibiting signs of influenza to the medical office, where a rapid kit was used to detect Influenza A.

Unilever is now in the 5th year of a seasonal influenza vaccination programme for all its employees, their family and household members, which is also extended to all distributors and suppliers free of charge. In 2010, it has successfully vaccinated 97% of its employees, up from 72% in 2006. A visit from a senior official from the Ministry of Health in 2008 led to a request from the government for Unilever to share its approaches with other major corporations. Workshops were held in 8 provinces in the country, and included large groups of private sector stakeholders and government officials. Representatives and medical personnel from neighbouring corporations met every 6 weeks to discuss employee welfare issues.

Procedures in the pandemic plan have been employed in 2 other emergencies – the evacuation of a sales representative from the Mentawai earthquake area; and the relocation of a sales office from Yogyakarta to Solo following the volcanic eruption at Mt Merapi. The process of writing a formal pandemic preparedness plan made Unilever’s Crisis and Management Team look at multi-emergency preparedness in a more demanding and systematic manner, that is now applicable to other emergencies and can be modified in accordance with the nature of the emergency. They have now institutionalized the process of preparedness.

5. **Practice Makes Perfect: The Importance of Simulations:** Simulations which test BCPs have been found to be a fundamental aspect of good business continuity management, enabling plans to be revised, refined and updated before weaknesses are exposed by a real disruption. In its March 2010 survey of over 900 members, the UK Chartered Management Institute found that approximately half reported that BCP exercises are undertaken annually (if not more), and 70% of those who rehearsed their BCP reported that the exercise exposed shortcomings – which emphasized the importance of conducting and learning from the rehearsals. The majority of those surveyed indicated that the identified shortcomings were addressed, thus strengthening the BCPs. Rehearsals should be performed at least annually and, where appropriate, encompass all the processes and people involved in BCPs.

**Case Study: Financial sector simulation exercise carried out by the UK Financial Services Authority**

The UK Financial Services Authority (FSA) is responsible for regulating 28,000 financial firms and the exchanges, and since 2006 has run exercises to test and practice UK financial sector resilience to emergency risks every 1-2 years. In 2006, the FSA ran a large exercise to simulate six months of the first phase of a pandemic, testing the effectiveness of plans for responding to an influenza pandemic and to assess whether any sector-wide issues needed to be addressed collectively. It lasted for six weeks, involved 70 companies and 3,500 people, and generated a huge amount of learning.

The issues raised through the exercise were wide-ranging, and they forced firms to examine a whole range of their policies (including repatriation of staff from overseas locations, quarantine rules, certifying sickness, use of vaccines, absence due to caring for children, voluntary absence, bereavement counseling, dealing with financial hardship, and the fungibility of staff across business units). All participants reported that their preparedness was improved and almost all amended their plans either during or immediately after the exercise.

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Important lessons were identified and addressed, and many follow-up actions and changes in policy to strengthen preparedness were taken by UK finance sector actors as a result. Lessons learned included:

- The importance of good communication and clear direction from the top;
- Reliance on suppliers and need to understand their resilience and plans;
- The need to satisfy staff demand for information, and the importance of sympathetic relations with staff for future staff morale and retention;
- The need for staff to be trained to have the skills to cover other roles in the event of absenteeism;
- Importance of planning how to return to business as usual in the post-peak period;
- An unrealistic level of expectation placed on Government for authoritative information, yet the demand for regular Government updates;
- The need for more detailed planning for the implications of remote working;
- The demand for regulatory forbearance;
- The need to understand global dependencies;
- The need to communicate across sectors;
- Benefit of close relations with suppliers;
- The need to be ready for 2nd and 3rd waves;
- The need to develop a coordinated strategy for responding to challenges of the distribution of cash across the country and the availability of retail banking services to the public.

The exercise was notable for acting as a catalyst for new areas of cooperation; new groups were established on remote working, recovery sites and insurance in response to the exercise findings. These groups are now expanding their work to address a wider range of business continuity issues.

The sector is considerably better placed to respond to a pandemic than it was before the exercise. The exercise highlighted a number of key issues which needed further work to strengthen the resilience of the financial sector against pandemic or indeed any other long-duration event. **After the exercise the following initiatives were developed:**

- The Tripartite Authorities (HM Treasury, Financial Services Authority, Bank of England) took forward work to address cross-sector issues.
- A series of working groups considered how the sector might improve its ability to respond to challenges and enhance its resilience.
- Organisations engaged in circulation of cash developed a code of conduct for use in the event of a pandemic.
- A principles-based framework was developed by retail banks, to improve coordination arrangements to maintain banking services during a pandemic.
- Financial infrastructure providers reviewed and enhanced contingency arrangements.
- Insurance firms set up a continuity group chaired by the Association of British Insurers to identify issues which require sector-wide solutions and to share experience with its membership.
- The Remote Working Group, established following the Exercise to consider key risks associated with working from alternative locations, prepared guidance on key issues identified.
- ICM, IBM, HP and SunGard published a statement of intent to provide clarity to customers and to stimulate further discussion on provision of recovery site service during a pandemic.

A number of firms also commented that much of the work done to plan for a pandemic has delivered enhanced resilience against a range of other (non-pandemic) threats. Internationally, the UK exercise was recognised as ground-breaking by other regulators, some of whom sought UK advice to organize...
their own exercises. This interest facilitated closer cross-border working and exchange of information so that the UK was able to compare its findings and analysis with those of other financial authorities. The Bank of England, the Financial Services Authority and HM Treasury have identified that investing in developing sustainable cross-sectoral networks on a domestic and international level provides critical advantages in enabling effective planning, communication and consultation.

6. **Know Your Critical Stakeholders:** One of the more surprising lessons learned by global corporations in preparing for pandemic influenza is that some could not produce consolidated lists of current employees or suppliers. Such information is important for understanding which employees are essential for business continuity, and for building redundancy within the organization for absence due to illness or death. The same is true for securing key supply chains. Centralized access to such information is also useful for communicating *en masse* during crises. Not surprisingly, the history of global companies often involves growth through merger and acquisition, and may result in fragmented corporate cultures where many management responsibilities are diffused to local or regional subsidiaries or offices – leaving behind relatively weak, centralized corporate HR and supply chain management functions. Building the necessary information access and flow across such organizations can be a serious long-term challenge. It is also worth noting that privacy laws in some countries (particularly in Europe) can make assembling and storing such centralized information difficult.

> “In terms of planning for a pandemic scenario, we had to accept the fact that we are a collection of more than 90 businesses around the globe, operating in 61 countries, and largely a decentralized organization. Cargill has traditionally been very decentralized, and as we have moved toward trying to get some brand identification, it just so happens that this crisis was a great opportunity for us to step up.”
>
> Mike Robach, Vice President, Food Safety, Cargill

7. **In Planning for Crisis, Opportunities Abound** – All metrics within companies are ultimately linked to the bottom-line – which is what drives employee behavior and activity. Companies instinctively avoid or seek to minimize purely cost-based activities, because they are conditioned toward maximizing profitability. Unfortunately, most companies perceive business continuity and crisis management as strictly cost-based activities that will generate no offsetting revenues or profits, and thus as activities, they tend to be minimized or avoided. However, it does not need to be this way; scenario planning-based approaches to crisis management and business continuity can be integrated with normal business planning imperatives, so that they generate explicit business opportunities in addition to serving their other purposes.

For example, Cargill leveraged a scenario planning exercise aimed at preparing for H5N1 to explore positive opportunities that could arise for some business units as the virus spread out of Asia and affected poultry operations in other countries. Likewise, DuPont, in a similar exercise, identified opportunities for their personal protective equipment businesses, and Ecolab for their sanitation products. Planning and preparing for a potential crisis does not mean that normal businesses imperatives need be ignored. Indeed, that is why private sector practitioners are interested in pandemic planning – to ensure the continuous (if not expanding) functioning of their core business activities.
“We have found opportunities for a number of our businesses and products in planning around the possibility of pandemic influenza – especially in our bio-security businesses... Verkon® is a disinfectant for livestock facilities, such as poultry operations..., and for Tyvek®, which is used in housing insulation and for bio-security garments... We also have created two types of kits that offer protection for individuals using our own disinfectant products and personal protective equipment, such as surgical masks... and we are finding great interest in these products. I talked about physical and psychological protection, and one thing that we have learned from our scenarios is that if people enter into a pandemic situation, they will be concerned with their physical and psychological well-being. These kits help with both, in a way. What we know about people’s perceptions of risk is that if they feel like they have some real level of control, they feel better about it and they are able to function better”.

Gil Meyer, Director of Global Issues and Crisis Management, DuPont

8. **Be Early, Be Informative, Be Caring**– Companies that identified and responded early to the threat of emerging infectious disease tend to report clearer benefits from their pandemic planning and preparedness efforts. GE, DuPont, Cargill, GSK, BHP, IBM, Air Products & Chemicals, and Van Heusen, all had operations that were directly impacted by the SARS epidemic of 2003, and as a result, were already sensitized to the potential significance of emerging disease in 2004, when H5N1 re-emerged. These companies tended to respond earlier and more aggressively in committing to address the emerging pandemic threat. In general, they report higher satisfaction with the benefits their efforts delivered relative to more sluggish respondents. Common themes running through survey responses and interviews with these “early and aggressive” respondents are benefits due to employee perceptions that the company was aggressively seeking to protect employee health and well-being. These results were achieved through early commitments to messaging and information distribution (through dedicated company websites, publications, correspondence, etc.) about the threat and what is to be done about it; and through delivery of tangible products controlled by the employee (such as masks, hand-sanitizers, tamiflu, etc.) aimed at protecting their physical and psychological well-being. This combination of “trusted information source” and “active protector” is reported by some as benefitting employee satisfaction, reducing absenteeism, and increasing productivity.

“Do not wait until the pandemic hits or things are already escalating. We waited until after Mexico mitigated the original wave of concern before getting really active and that put us behind the eight ball.”

Jason Grosz, Human Resources Manager, Ecolab

“Initial concern was specifically post SARS, and building on the concerns regarding broader outbreak of avian flu”.

David Jenkins, Vice President, Safety & Security, BHP

“We have broadly communicated to our employees on what we are doing about...the potential of pandemic flu through a special edition of our Cargill News, which is received by about 45,000 people around the world....”

Mike Robach, Vice President, Food Safety, Cargill
9. **Anticipate the Need for Scale** – Companies should remember that as a threatening disease approaches, people may become concerned *en masse*, and simultaneously seek help. Many companies have reported difficulties in handling sudden surges in demand for services or information by employees in response to rising concerns at the approach of infectious disease. This is also a common problem for the public sector, and was certainly an acute concern in particular locations and specific times during the recent H1N1 pandemic. For example, Argentina’s Health Ministry announce on June 23, 2009 that 32 hospitals in the city of Buenos Aires were suspending non-urgent surgeries to provide priority to patients with confirmed or suspected flu-like symptoms. **Internal staffing and systems should be reviewed in light of possible surge demands, and surge capacity installed.** For companies, this may be primarily an information management and communications challenge, and fortunately, scalable case management systems are now accessible over the internet, and can be easily and cheaply incorporated into any organization. Planning for their acquisition and use is nonetheless, still highly advisable.

> "Managing messaging was extremely cumbersome"
> Dr. James Schuppert, Director Health Services, Corning

10. **Use of Internet-based Tools and Platforms:** In the development of internet-based tools, one key lesson learned has been the importance of the choice of delivery platforms. **However good the pandemic planning template, it is unlikely to function well unless a business culture has already adopted and regularly uses the software platform delivering the template.** **Wherever possible, pandemic planning templates should leverage, and be delivered through, software platforms and systems that are already in widespread and regular use by the people doing the planning.** This means that companies, as well as the providers of such templates – both public and private – should think carefully about which platforms will be most effective for delivering such services. Ubiquitous software platforms such as Facebook, Twitter, and Google may be more appropriate as partners for developing and distributing such templates for small or medium sized enterprises.

Additionally, it was also recognized that strong partnering opportunities exist to advance preparedness tools. The fact that public sector agencies have a central interest and direct role in promoting public health and minimizing the negative impacts of pandemic influenza and other infectious disease threats suggests that **strong partnering opportunities should exist with private sector actors to further the development of more useful and widely available tools to help all parts of society better prepare in response to emerging threats.** The information resources of the WHO and other such agencies have already proved invaluable in response to the threat of infectious disease. It could be explored to see how these (and other public resources) could be more usefully packaged and distributed so that they were more likely to be “used and useful” to all sectors of society. One way to accomplish this, would be for the **WHO to partner with private sector participants on packaging public health knowledge and expertise into internet-based “software objects or applications” that can be accessed via popular internet platforms,** and easily customized or extended to meet particular situations and needs.

11. **Message the Nature of the Threat and What Actions Individuals Should Take.** Through surveys and interviews, respondents frequently cited the importance of simple, repeating, culturally appropriate messaging on the nature of the threat and how individuals should respond as essential in their communications efforts aimed at pandemic preparedness.
“We are really driving respiratory etiquette through posters, emails, internet messaging, signs, etc. We are driving hand washing very hard, and not just for food handlers, but for the general employee population with multi-language posters, restroom cards and any chance we get...”

Dr. Rob Goldsmith, Associate Global Medical Director, General Electric

“I am working with people from many different cultures. When I had to lecture for flu prevention, each culture had a different standard. One strategy would work with some cultures, but it wouldn’t work with others... However, when I explained the main purposes behind various prevention strategies, people would accept the need for changing their behaviors. I learned that to educate people in disease prevention, I needed to put these recommendations in the context of the diseases that were in the area, the key features of their environment, the tendencies and habits of people in that area and culture, etc. In general, I learned to accept others, and they will accept you”.

Ms. Etsuko Okuda, Licensed Nurse, International SOS

“I think the key to all of this is to be able to operate at the local level and be understanding of the culture...... we are not out to try and force people to change their lifestyles, but rather we are offering protective information on the way to handle animals and the way to prepare food. We offer education on the transmission of the H5N1 virus, and some very simple tips on how people can contain their own animals and keep them separate from the wild migratory water fowl that were carrying the virus. We also offered tips on the way to safely handle and prepare food. A lot of folks just did not realize they could catch the virus by simply killing, bleeding, de-feathering, and eviscerating an infected bird. Teaching them about how the virus is transmitted, and giving them some easy things they can do to prevent infection really went a long way in helping us to work at the village level with our growers and the consumers of our feed products.”

Mike Robach, Vice President, Food Safety, Cargill

12. **Linkages with the WHO Pandemic Alert System** – Many pandemic plans in the private sector had action triggers linked to WHO decisions on changes in the pandemic alert phase. A number of private sector players voiced dissatisfaction with their dependence on WHO’s pandemic alert system during the H1N1 2009 pandemic. As a result, some companies decided to de-couple their future decisions from the WHO alert system, and have pursued defining their own alert stages and the evaluation criteria they will use independently. Another possibility is that the **WHO might solicit participation from the private sector in the design of an alternative WHO system explicitly to help private sector decision-makers**, which could exist side-by-side but be wholly distinct from the existing WHO pandemic alert system – or any modified system aimed at the general public or public health agencies or constituencies.

“Most importantly, we created a variable “level” system where processes and expectations could vary depending on the severity of the issues within a specific geography. The system allowed us to still meet the needs of our customers, while supporting the needs of our own associates...”

Jason Grosz, Human Resource Manager, Ecolab
“HINI challenged the relevance of the WHO phase classification of influenza pandemics. As the situation evolved, the escalations in phase turned out to be of limited value to many planners because they were global in nature and did not take into account the local impact of the illness – the most important measure to organizations supporting communities of employees”

International SOS: “The H1N1 Pandemic: 10 Key Lessons Learned”

13. **Motivating Private Sector Responses**
Motivating private sector resources to seriously prepare for an emerging systemic threat in advance of actual disaster is a serious challenge. The fact that the private sector invested as much human and financial capital as it did in preparing for pandemic influenza between 2004 and 2009 is extraordinary, and worth further study. Understanding how the private sector was motivated to act and invest is important for improving our responsiveness to other systemic threats. A cursory review of relevant recent history suggests that in the case of pandemic influenza, an initial public health scare due to the emergence of a new, but concrete systemic threat (H5N1 killing 6 people in Hong Kong in 1997 and its potential to go pandemic), when followed by the recurring appearance of costly events ascribable to the same threat (H5N1 disease outbreaks in both birds and humans in 2004 and 2005) – can motivate the private sector to act and invest to mitigate the threat in advance. **Better understanding this dynamic and the compiling of such compelling information would be helpful for mobilizing private sector resources in advance of future emerging and potential systemic threats.** For example, the systemic threat posed by continuously rising food and fuel prices could (and probably should) be treated similarly. First the nature of the systemic threat must be explained, and how – if left unchecked – such a price spiral could damage the world -- both in terms of increased human death and suffering, **AND in terms of the economic cost to national and global economies** –including direct, indirect, and systemic costs imposed by social unrest and political upheaval (as in the Middle East). This approach might be expected to elevate concern within the private sector community of global companies and private investors for the importance of acting and investing to secure affordable global food supplies. Similarly, the systemic threat posed by climate change can be seen as analogous to the threat posed by emerging infectious disease. Increases in the frequency and economic impact of extreme weather events are like increases in the number and economic impact of infectious disease outbreaks. Again, explaining the nature of the systemic threat simply -- in both human and economic terms that including the direct, indirect, and systemic costs -- and then documenting the economic cost of related events (extreme weather events) can drive home the reality of the emerging threat, and its connection to the economic interests that propel private sector behavior.

**Critical Gaps**

Several critical “gaps” have been identified which could threaten preparedness efforts of the private sector to meet the challenges of a future pandemic influenza.

1. **Complacency** – one of the most serious threats to future preparedness is the danger that the extraordinarily mild H1N1 pandemic of 2009, coupled with perceptions of false warnings regarding H5N1 evolving into pandemic influenza, will weaken commitments to follow through, and embolden some to dismiss the need to strengthen preparedness. That some amount of this is already happening is readily apparent from interview results and survey responses.
“The failure to maintain or to have an appropriate process for future planning in place.... the work done was reactive to the H1N1 pandemic and was focused on answering the needs of the current crisis. Documentation on how we accomplished this is scarce, and work essentially stopped once the pandemic was no longer seen as a severe threat.”

Jason Grosz, Human Resource Manager, Ecolab

2. **Countermeasure Cost, Storage, and Distribution** – the difficulty and expense in acquiring, storing, and distributing pharmaceutical countermeasures such as Tamiflu and Relenza is frequently referenced by large, global corporations as a serious problem, which is all the more compounded under the special circumstance of pandemic. **Private and public sector participants could benefit from partnering to jointly develop better, standardized and rational approaches to decision-making in this arena, and perhaps through jointly developed tools and approaches which would make these decisions much easier for all participants.** Questions to be addressed include how to best evaluate the quantity, types, and best uses of pharmaceutical countermeasures, and once acquired, how to best store, distribute and dispose of such stockpiles. Collaboration toward modernizing and standardizing country regulations regarding the private use of pharmaceutical countermeasures is also warranted.

“If you are a global organization, don’t stockpile drugs in a central location thinking you can then disperse them to locations in need – you cannot transport them across borders.”

David Jenkins, Vice President, Safety and Security, BHP Bilton

“And anytime you have a stockpile of antivirals and start to hand them out it is a nightmare – our antiviral stockpile in Korea was confiscated.”

Bill Koch, Vice President, BCP, Air Products and Chemicals

3. **Vulnerability to internet/ICT system failures** – While the importance of internet-based tools and platforms has been recognized as an excellent achievement, the importance of these elements also points to a critical vulnerability. **Potential failures in the internet and ICT systems remain significant threats which have not yet been sufficiently mitigated, thus much more work is required.**

4. **Need for Additional Support to Small and Medium Sized Enterprises (SMEs)** – Given the amount of resources that can be required for a business to adequately develop business continuity plans, large corporations are typically better able to finance such activities than SMEs – and as a consequence, the level of readiness amongst SMEs is significantly lower. For example, Chartered Management Institute 2010 survey in the UK found that 65% of large firms have BCPs, but only 29% of small firms. Results of a 2007 online survey on pandemic readiness by the APEC Business Advisory Council similarly concluded that SMEs were less prepared than large, multi-national corporations to respond to a pandemic. Given the fact that the vast majority of private sector companies in the world are SMEs, **there is a need to provide additional support to SMEs to strengthen their preparedness.**

5. **Supply Chain Vulnerabilities** – **There is considerable scope for businesses to better understand the importance of supply chain vulnerabilities, and consequently to better address how to manage them.** An organization is only as resilient as the external stakeholders it relies on. Driving business continuity management through the supply chain is important for any organization wishing to improve its resilience. As previously noted, given the limitations that many smaller businesses may face in their
preparedness work, there is significant room for larger businesses to take a more significant role in assisting with this while securing their own supply chains. For example, the giant American multinational corporation Walmart leveraged its pandemic preparedness work by calling together 500 of their largest suppliers to together discuss and work on preparedness planning and supply chain management efforts. As another example, after developing its own business continuity plans, the American multinational conglomerate General Electric (GE) used its own plans to help drive alignment from critical suppliers – requiring suppliers to meet a standard of support to ensure the security of their supply chains.

6. **Enhancing Business Continuity Plans Through Improving Links with Public Health Players** – Precisely because the particulars (what, where, and when) of threats posed by infectious diseases (including pandemic influenza) are so uncertain, while the investment required to seriously plan and prepare remains significant, large global businesses are already moving to incorporate their planning and preparedness for emerging disease into more broadly designed “all hazards” business continuity and crisis management plans. Addressing all identified threats – both local and systemic – through a single planning effort represents an extremely complex and formidable challenge. The success or failure of such efforts will depend in large measure on the ability of large organizations to rapidly and effectively mobilize, leverage, and deploy what they have already learned to meet whatever new and particular circumstances surround the next crisis or threat. The ability of organizations to do this will also depend on the nature of the tools available to help them. In this regard, public health agencies and private sector players both have important leadership roles to play – and should be actively seeking partnerships to develop such tools, and to promote solutions to the challenges posed by “all hazards” business continuity and crisis management planning.

**Whole-Of-Society Collaboration**

Opportunities to improve collaboration and partnership between private sector actors and public sector institutions point up the critical challenge of improving whole-of-society collaboration in meeting emerging systemic threats. Several important lessons can be drawn in this regard from the private sector’s experience in preparing for pandemic influenza:

1. **Role of Governments** - Fundamental to an effective response to global threats is enhanced collaboration and cooperation between governments, businesses and civil society. There are various means of accomplishing this, including the introduction of statutory/legislative incentives and requirements for private sector enterprises to take on this work. For example, one of the experts interviewed for this paper pointed to Bio-Terrorism legislation passed by the US Congress in 2002, which provided federal funding for protecting the US food supply against bio-terrorist threats as a source for encouragement and funding for private sector businesses to invest in preparedness work. In the UK, parliamentary passage of the 2004 Civil Contingencies Act, which required frontline responders to establish and maintain business continuity management arrangements, is credited with greatly enhancing the uptake of BCPs (the UK Chartered Management Institute 2010 survey found that of the different types of organizations using BCPs, the public sector was the highest).

Governments can also play a critical role in the provision of guidance for private sector readiness. For example, the 2010 UK Chartered Management Institute survey found that 26% of the UK firms surveyed used Government advice to help develop their plans. The Government of Australia – particularly through the Department of Innovation and Industry – was cited by one interviewee as having done considerable work on preparing pandemic preparedness toolkits and guideline materials for the private
sector. However, there is scope for the development of comprehensive guidelines. A 2008 study by the London School of Hygiene and Tropical Medicine on BCP in Europe identified huge gaps and differing level of advice given to businesses to prepare for a pandemic between European countries.

Ultimately, it is important for governments to create new channels for engaging private sector participation. The role of business is not just preparing its own assets and operations for anticipated global threats, but also providing know how, solutions and resources to the disaster preparedness challenge, ranging from risk assessment, to designing disaster risk management and financing vehicles, and designing and deploying new technologies. The better engagement of business is needed in the policy-shaping process. Business and civil society representatives should be involved at the early stages of planning, policy conception, process design and role allocation, at central levels and in dispersed locations.

Public authorities also need to engage with the private sector to ensure they are able to protect the functions carried out by companies which are vital to society; and to harness useful business know-how and capacities to look after companies’ own needs and protect other actors. Business can help in different ways at the stage of risk analysis and policy design, in concrete emergency planning, in tackling ad hoc events and hazards, and in the process of post-crisis return to normality and reconstruction. Business people can make inputs to the quality of risk assessment. They can input to vulnerability mapping, because of their insights into the complex interdependencies of productive sectors, service providers, infrastructure systems and utilities with other parts of the economic and social system. The data management models created by business for multi-variable analysis, graphic display and scenario building are among the most advanced available.

Difficulties standing in the way of effective public-private cooperation include: philosophical and political attitudes – different frames of reference and physical or mental maps of threat and response, leading to different priorities and preferences – and difficulties over contact points, matching structures, communications, confidentiality and financial/legal arrangements.

Case Study: UK Business Advisory Network for Flu

In 2006, the UK Government convened a Business Advisory Network for Flu, comprising of 150 UK business leaders from large businesses and networks of SMEs. This Network enabled Government-industry coordination and consultation, a two-way high-level channel between private sector bodies and central Government. The objective of the Network was to ensure the delivery of advice and guidance needed by business groups and individual firms to allow them to undertake their own planning.

The UK Government provided businesses participating in the network with planning assumptions, regular updates on risks, assessments about likely next developments, and advice about possible changes to policy and legislation. The Government also provided updates on the likely sustainability of critical infrastructure as well as information about tools, setting up a website and email addresses for providing such information and answering questions that may have arisen. The Government used these tools to consult businesses about policy decisions – such as potential changes to sickness certification regulation. This consultative approach fostered a harmonious Government-business relationship.

A key lesson that emerged from the Business Advisory Network for Flu concerned the inter-dependency of supply chains. For example, the failure of a small supplier of one critical component could provoke a disproportionate impact on the capacity of the national energy infrastructure to continue operations.
Another lesson gained was the recognition of the challenge for smaller businesses to have the resources necessary to participate in such fora, thus the fact that more thought needs to be given into how to interact with smaller businesses. As a result, the UK Government is now developing a strategy for supporting SME corporate resilience.

Overall, the Network was found to have broadened awareness about risk, it encouraged private sector continuity planning for pandemic, and it enhanced generic risk-based corporate resilience more generally.

2. **Partnering with Public Health** – Private companies almost always depend on the information and guidance provided by public health agencies in communicating with their employees and other stakeholders around infectious disease threats. And when asked, companies usually acknowledge the importance of this information. Public Health agencies such as the WHO and CDC are highly credible, trusted sources on public health threats and what to do about them – and in general, these agencies do an outstanding job at this. Unfortunately, the tangible value provided by doing so is not always recognized by the private sector, or other sectors of society. Likewise, when companies have potential solutions to emerging disease problems, their motives are often called into question. Both sides of this divide could benefit from honest dialogue to identify ways in which they might improve their working relationships, and best help each other better address the threat of emerging infectious disease. Companies could benefit greatly from better packaging and delivery of public health expertise and information – and could be valued partners in promoting and helping public health to accomplish. Public health agencies could benefit through partnerships with private sector participants that recognize and support the value of the information and services they provide. Each can benefit from better understanding the other, and how to maximize the mutual value of their necessary partnership.

“We established good links with regional WHO Collaborating Center for Reference and Research on Influenza and also the State Dept. of Heath to get accurate, unemotional information”.

David Jenkins, Vice President, Safety and Security, BHP Bilton

“Information from WHO is world-wide and people from different countries can accept their information and follow their guidelines, especially in multi-cultural work environments”

Etsuko Okuda, Licensed Nurse, International SOS

“We relied heavily on information from the WHO and the CDC to help guide us”.

James Grosz, Manager Human Resources, Ecolab
Lessons relevant to preparedness for other threats

- Compiling a compelling tide of public health warnings and credible, economic analysis demonstrating significant economic burden cemented the seriousness of the pandemic threat in the minds of global business leaders and catalysed commitments to take real action in response. Understanding why the private sector mobilised such substantial resources for pandemic preparedness can help mobilise responses to future threats.
- There is scope for strengthening collaboration between Government and businesses. Governments should create new channels to engage businesses in policy-making. Business and civil society should be involved at the early stages of planning, policy conception, process design and role allocation.
- Developing sustainable cross-sectoral networks of government, business and civil society actors on a domestic and international level provides critical advantages in enabling effective planning, communication and consultation.
- Strong partnership opportunities exist between public and private sector actors to develop tools to help society prepare for threats – for example packaging public health knowledge into internet-based software objects that can be accessed via popular internet platforms and customised.
- Crisis planning lifecycles used in pandemic are applicable to all crises: from alignment, through commitment, conception, development, pre-event actions and execution, to evaluation.

“In 2011, DuPont’s pandemic planning proved to be of significant value in an unanticipated way. The same disaster preparedness and business continuity planning, which had provided for an effective response to the 2009 H1N1 pandemic, was put to use in support of the company’s response to the crisis in Japan that was triggered by the earthquake and tsunami. The procedures originally put in place in anticipation of a serious disease threat turned out to be very valuable in helping our people and businesses respond to a crisis that none of us imagined”.

Gil Meyer, Director, Global Issues Management, DuPont

Conclusion

Between 2004 and 2009, the private sector invested substantially in planning and preparing for pandemic influenza. (We do not know, but we would guess that from 2004-2009, the private sector as a whole invested something like in the order of $10 billion in preparing for pandemic influenza.) The aftermath of the recent H1N1 influenza pandemic provides an opportunity to consider what has been learned by the sector, where gaps exist, and what actions could strengthen planning and preparedness for future pandemics or other emerging threats.

The findings presented here are based on the experiences of private sector participants in their efforts to plan and prepare for (and respond to) pandemic influenza. Knowledge of these experiences was gathered through research, surveys and interviews with private sector participants involved in pandemic planning and preparedness and response activities. The findings highlighted are not meant to be comprehensive, but representative of the principal “lessons learned” synthesize from the limited sources available to us. (Annex 1, attached, provides the detailed questions and responses to our web-based survey of a sample of key private sector pandemic preparedness practitioners.)
One striking aspect of the lead up to the pandemic is the mystery of what so successfully motivated the private sector to commit such substantial human and capital resources to prepare in advance. A better understanding of how and why this occurred could be crucial for mobilizing such a response to future emerging threats.

We also found that there would be value in strengthening collaboration between governments and businesses. Governments would do well to engage businesses better in policy-making processes. Investment in developing cross-sectoral networks of government, business and civil society actors would leave the world better-prepared to mitigate future global threats.

Those large, global companies that committed the required level of managerial support and resources to truly plan and prepare for the potential consequences of a moderate to severe global influenza pandemic found the effort to be complex and resource intensive -- so much so that virtually all consider it an activity which cannot sustainably be repeated from scratch each year, but must be integrated over time into a more routine “all hazards” business continuity, crisis management, and strategic risk management process. Transforming these previously distinct activities into a routine and integrated planning function is an emerging challenge for the private sector, and one for which solutions are still in their infancy. While there are good reasons to be hopeful, no one yet knows how well such integrated efforts will perform. What is unquestionably true is that the experience gained through private sector pandemic planning and preparedness efforts have been an indispensable step toward identifying and better defining this broader challenge. Fortunately, many companies cite unanticipated benefits emerging from their pandemic planning preparedness activities, including numerous instances where such planning helped to identify new business opportunities, and to improve functional alignment, coordination, and performance across large, globally distributed organizations. Finally, the achievements of pandemic planning in the private sector include many documented instances where new capacities and practices that were implemented in preparation for pandemic influenza have subsequently proved of real value in meeting other threats. All of the experiences, achievements and “lessons learned” through private sector pandemic planning and preparedness efforts are important, and all sectors of society can benefit by learning from them and putting them to good use.