



**EINet**



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# Local to Global Public Health in the Asia Pacific: Sharing Best Practices in Pandemic Influenza Preparedness

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Joint Thailand Tropical Medicine Meeting  
October , 2008

# Objectives

- To analyze how collaboration between public health and advanced networks in two virtual symposia enhanced public health cooperation in the Asia Pacific
- To describe the benefits and limitations of multi-country videoconferencing based on the experience of the APEC EINet Virtual Symposia
- To describe the evolution of best practices in pandemic preparedness as described in findings of the two symposia

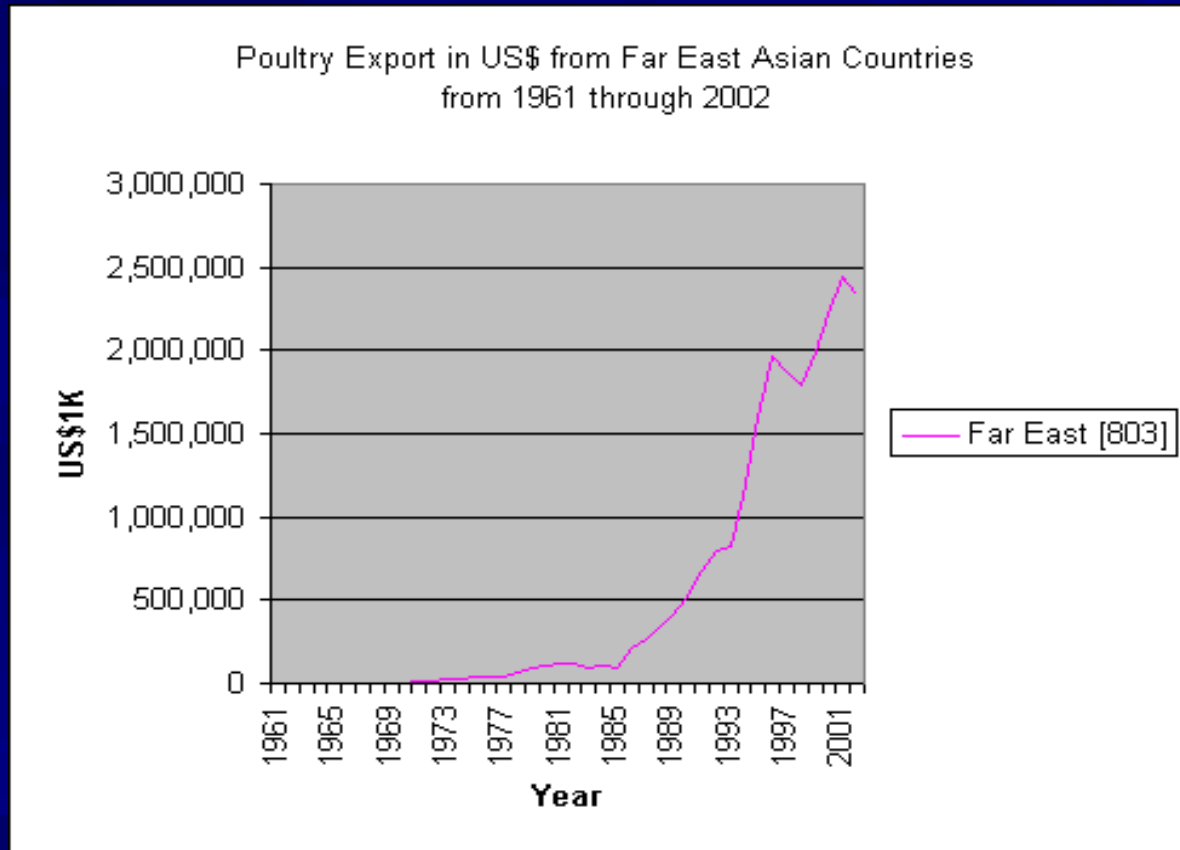
# Background: Pandemic Influenza

Reservoirs for influenza A exist in many animals (birds particularly important)

- Avian viruses can reassort with human viruses to produce progeny that possess novel surface antigens with potential to spread among humans
- Currently circulating Avian Influenza H5N1 may be candidate for next pandemic

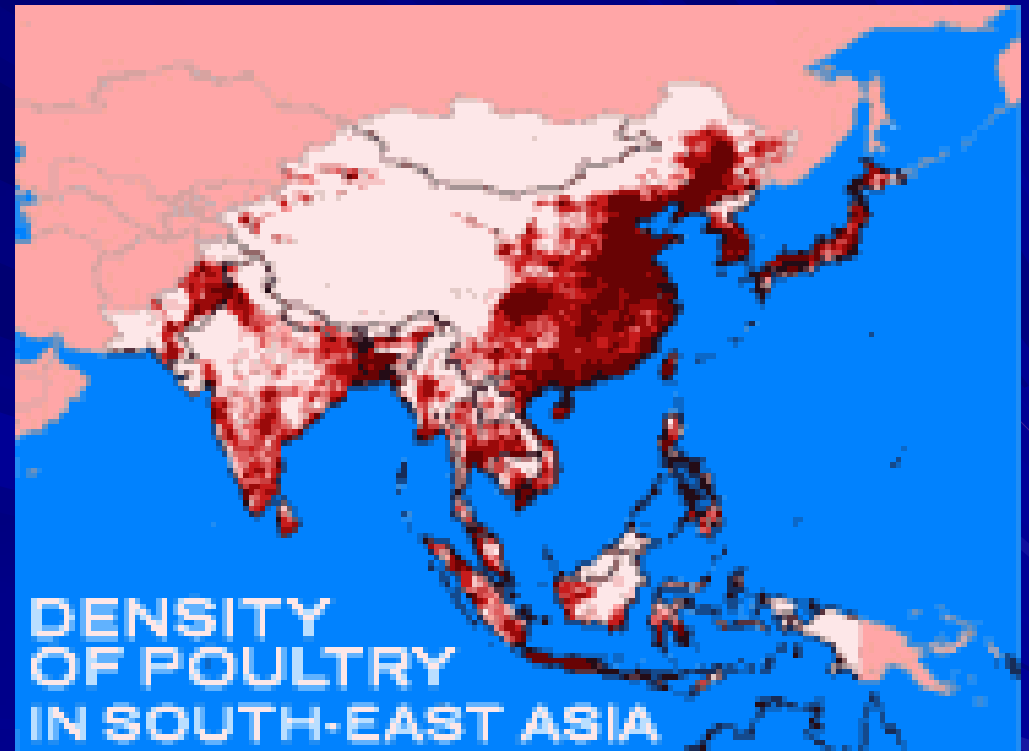


# A Five Fold Increase in Poultry Exports in Fifteen Years



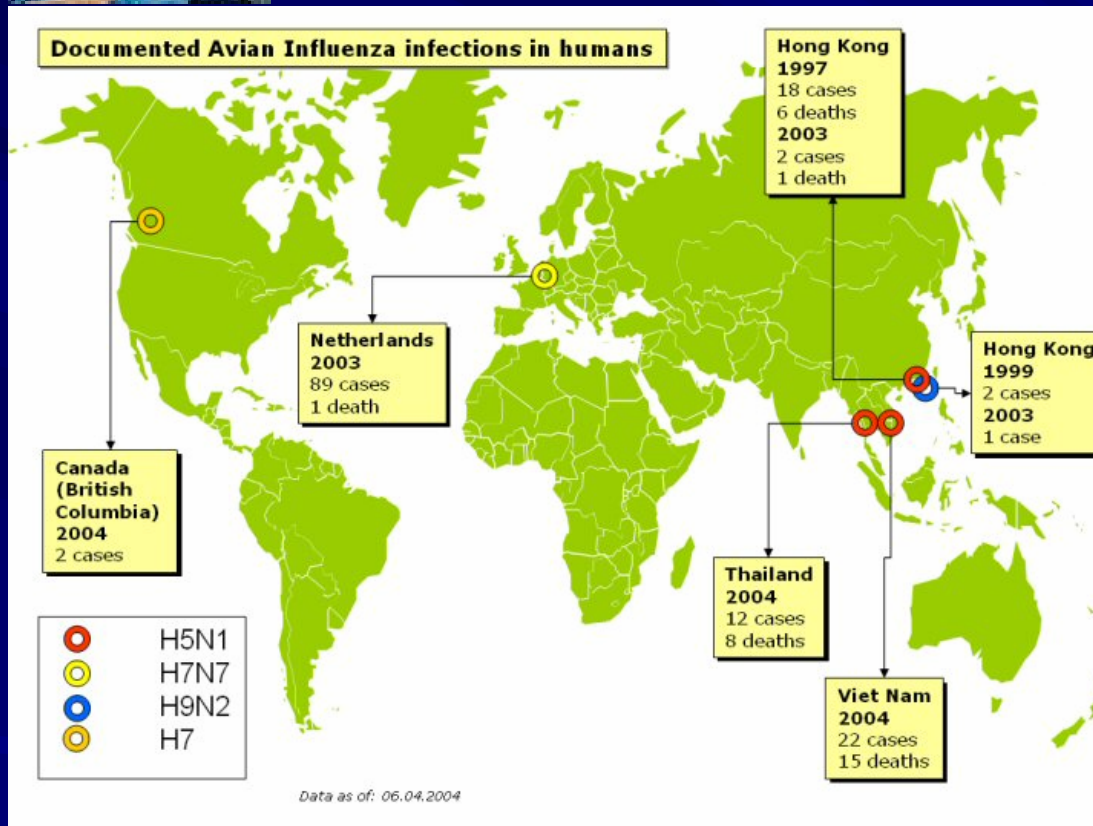
# Influenza, a global threat

- Avian influenza H5N1 virus has manifested itself globally
  - Asia Pacific community has been hit hardest.
  - 48 countries reporting H5N1 to OIE
  - Economic, agricultural, and public health impacts.
  - Potential to turn into a pandemic influenza and become a substantially greater global threat.





# What is next with Avian Influenza?



- Active Surveillance in place sub-regional exercises in pandemic preparedness, APEC, ASEAN, WHO
- High human mortality (approx. 60% worldwide) poor transmission
- 245 deaths in 387 cases worldwide (212 deaths in 342 cases in Asia)
- Indonesia 137 cases 112 deaths. "Threshold" for pandemic is not known.

2004 Canada costs \$300 million



# Background: APEC Emerging Infections Network (APEC EINet)



- Founded 1996 by Asia-Pacific Economic Cooperation (APEC) and University of Washington
- APEC
  - Forum for facilitating economic growth, cooperation, and trade in Asia-Pacific community
  - Only inter-governmental group in world operating on basis of non-binding commitments, open dialogue and equal respect for views of all participants
  - Unlike WTO or other multilateral trade bodies, APEC has no treaty obligations. Decisions reached by consensus and commitments undertaken on voluntary basis.
  - To create environment for safe and efficient movement of goods, services and people across borders

# Background: APEC



- APEC's 21 Member “Economies”: 41% of global population, 55% of world GDP and 49% of world trade.
- Australia; Brunei Darussalam; Canada; Chile; China; Hong Kong; Indonesia; Japan; Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; Philippines; Russia; Singapore; Chinese Taipei; Thailand; United States; Viet Nam.
- APEC Business Advisory Council (ABAC) US Secretariat based in Seattle



# Background: APEC EINet


- Operating within economic forum
- Goal: To enhance preparedness in APEC region and encourage public health efforts in economic/trade sector
  1. Provide timely and reliable information on emerging infectious diseases (EID) in Asia Pacific
    - Free weekly EID newsletter, teaching materials, and research resources
  2. Collaborative Partnerships

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## Welcome to the Emerging Infections Network (EINet).

### Indonesia (Sumatra): Suspected avian influenza H5N1 cases test negative; concern remains

Posted 15 August 2008

The Indonesian government reportedly said 12 villagers from North Sumatra who were hospitalized for suspected avian influenza had tested negative for the disease. [full story...](#)

### First reporting of Canadian human granulocytic anaplasmosis

Posted 08 August 2008

Investigations conducted in Calgary, Alberta, Canada have identified the first Canadian reported case of human granulocytic anaplasmosis (HGA) that is thought to have been acquired locally. [full story...](#)

### Indonesia: ASEAN states to test readiness on H5N1 avian influenza

Posted 01 August 2008

A three-day meeting of representatives from members of the Association of Southeast Asian Nations (ASEAN) agreed Southeast Asian countries must be better organized to tackle a human-to-human outbreak of avian influenza H5N1. [full story...](#)

### HealthMap, the newest global infectious disease surveillance tool, values informal sources

Posted 25 July 2008

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# Background: APEC EINet

**Collaborative Partnerships:** Work with partners to improve preparedness.

- Inter-economy: Across APEC economies
- Inter-agency: Trade/Business and Public health
- Inter-disciplinary: Advanced Networks (technology) and Public health

Mitigate the threat of emerging infectious diseases by enhancing communication and collaboration.



# Background: Collaborative Partnerships--Videoconference

- Stay local--less time and cost than international travel.
- Real-time communication with multiple sites (simulates face-to-face meeting--more “cues” than teleconferencing).
- Virtual medium unaffected by travel advisories (potential for use during actual pandemic).
- Precedence for success—e.g. videoconference used during SARS outbreak in Taipei when movement restricted; real-time simultaneous videoconference by APEC EINet with 9 other APEC economies Jan 2006.







# Steering Committee Meeting REDI Centre, Singapore Dec 2007

Economies represented:  
Australia  
China  
Japan  
Philippines  
Singapore  
Chinese Taipei  
USA



Other representation:  
APEC Secretariat  
UNSIK  
REDI Centre  
SingAREN (Advanced networks)



[www.accessgrid.org](http://www.accessgrid.org)



# Methods: Polycom Videoconferencing

## ■ Advantages

- Stable, well-known and mature technology
- Accessible via IP & ISDN
- Likely longevity and continued relevance

## ■ Disadvantages

- Proprietary--cost of bridging and solutions (Polycom units or software)
- Switching/split screens not in our control
- Can only see site that is presenting; non-presenters are not in view



# Results: Successful Virtual Symposium

- 30 May 2008, 01:00 – 06:00 UCT.
  - May 29 (Americas); May 30 (Asia)
  - Started and ended on-time
- 2<sup>nd</sup> APEC EINet Virtual Symposium on preparedness, “Pandemic Influenza Preparedness: Partnerships and Continuity Planning for Critical Systems”

# Results: Successful Virtual Symposium

- Welcomes by UW Provost, UN System Influenza Coordination representative, and Ann Marie Kimball
- Facilitated by UW's Carl Osaki
- First Presentation by Peru's Minister of Health, as Lead Shepard of APEC for 2008





Provost  
Phyllis Wise

Prof. Carl  
Ozols

Dr. Ann Marie  
Kimball

Mr. Edmund  
Young

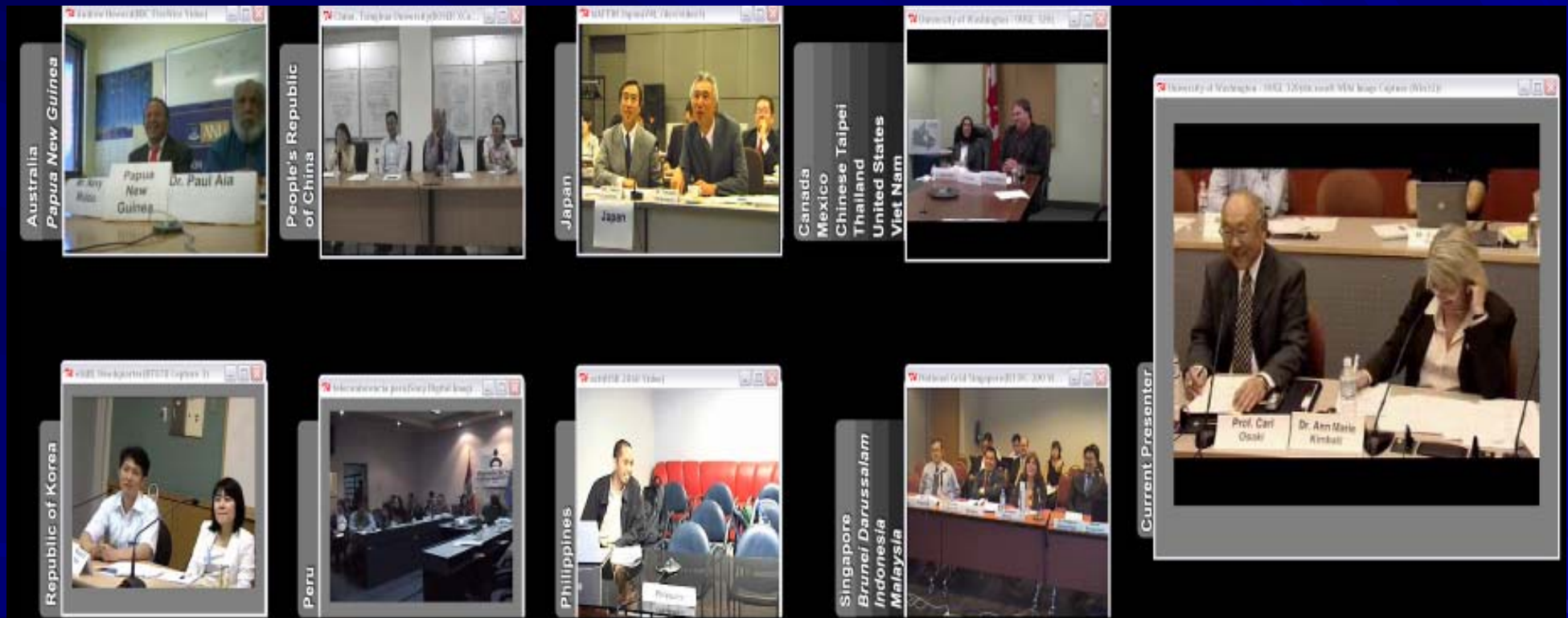
Mr. Tuan  
Luong

Mr. Matthew  
Young

PACIFIC  
NORTHWEST

UNIVERSITY

# Matrix of Virtual Symposium Participants



# Discussion: Successes

- Enhanced communication and collaboration—preparedness activities that are recommended by APEC and WHO.
- Linked public health and their local advanced networks counterparts, often unaware of each other. Partnership of public health and advanced networks holds promise in improving pandemic preparedness and response in Asia-Pacific.
- Equity in information sharing—both developing and developed, affected and unaffected economies received helpful information.
- Saved travel time and costs associated with traditional conferences.

# Discussion: Limitations

- Technical problems: audio, visual, connectivity
  - However, 17/18 respondents wanted to participate in future Access Grid videoconference--benefits appeared to offset limitations.
  - UW Technology team created a "network community" to improve future videoconference quality
- Those economies without reliable technology had to travel to neighboring economies
  - Still local--much shorter travel than all meeting at a single site
  - Viet Nam, who had to travel to Thailand in 2006 to present, successfully presented with domestic videoconference technology

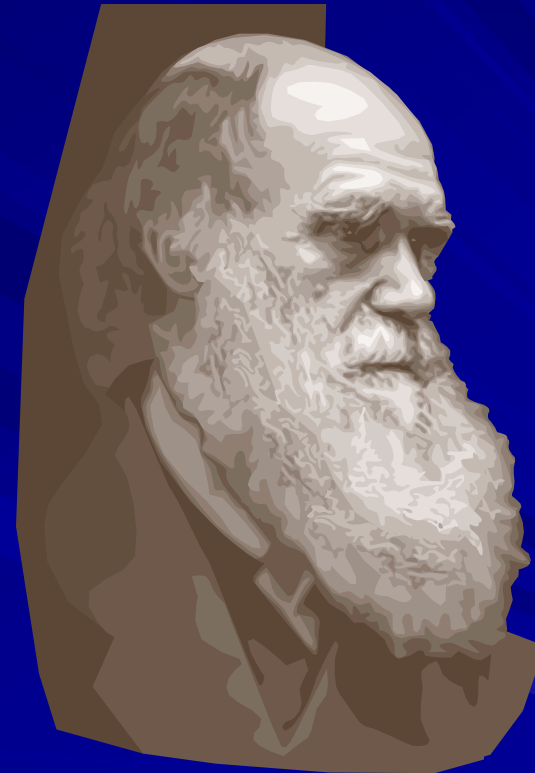
# Discussions: Limitations

- Extensive preparation: Need for pre-event testing and preparation
  - Future videoconferences can be improved and made more efficient.
    - E.g. Securing a stable venue server with a known configuration in place in advance will make testing connections easier.



# Evolution of Preparedness in APEC Indicators from two Symposia

- The first symposium indicated the theme for the second
- The second symposium exposed numerous “shifts” in policy and strategy
- The technology is robust and flexible



*Charles Darwin -“I Love Fools Experiments;  
I am always making them”*

# 2006 Findings: General Areas

- Existence of national/local scenario exercises and drills .
- An incident command system, coordinated by a central agency.
- Existence of national preparedness plans— often built on previous plans, and revised regularly as an evolving plan. Geographic and national tailoring of international guidelines was found-



# Business Continuity Priority 2006



- **Inclusion of stakeholders in the planning and response process. Numerous economies cited the inclusion of the private sector (e.g. business community), agriculture/veterinary sector (e.g. poultry industry, exotic pet trade), and the public community (e.g. volunteers) in their pandemic preparedness discussion**
  - **Business continuity/contingency plans were recognized by almost all economies as a crucial aspect of pandemic preparedness.**

# Observations 2008: The Public Private Divide in Asia Pacific

- Different cultures (private vs. public)
- Speak different languages – need to understand each others goals and language (Brunei)
- Public health sector is not perceived to produce products with which the private sector interacts
- Private sector does not get funding from public sector for crisis management
- Private sector must see some kind of return on investment (ROI) in pandemic preparedness – it must be a worthy investment, make actuarial financial sense.

# Shared Leadership Builds Trust in 2008

- Shared leadership between private and public sectors
- The Canadian PSWG is chaired by the head of the Grocers Association in Canada and the majority of members are from business.
- Example of establishing a public/private sector working group (including public and private sector officials) has met with success.
- Malaysia endorsed the concept of non-governmental lead to multisectoral planning.



# Legal Issues Abound 2008

- Legal issues surrounding preparedness
- Quarantine- an area where economies would like additional technical advice through this collaboration
  - Laws that govern the use of quarantine (Peru)
  - How quarantine is lifted after it has been invoked (Taipei and TSM Corporation)
- Australia presented their system of Attorneys Generals, which allows a crosscutting among sectors.
- Strategies in Canada included building mandates into contracts for preparedness planning. Canadian law includes the concept of corporate liability to assure “reasonable assurance of planning for safety” for pandemics.

# Working with Private Providers: Medical, Pharmacy 2008

- Mexico brought forward the need to work systematically on surge capacity with the private sector in health care.
- Japan has worked to create a capacity for production of prepandemic vaccine to cover their population. They have identified four production facilities.

# Business Continuity Planning: The Challenges in 2008

- **Small and Medium Enterprise assistance**
  - Taipei is working closely with their large private industries using these activities for “benchmarks” which can then guide outreach to smaller enterprises.
  - Large corporate entities have the potential to support small and medium sized enterprises (SMEs), which are in short supply of expertise and resources (e.g. through supporting telecommuting).
- **Some countries/economies have developed guidelines and tools to assist private sector preparedness and business continuity (including the post-pandemic period), but few have provided practical support for application or done follow up on implementation.**

# Absenteeism: Help Wanted? 2008

## ■ Absenteeism

- Mexico estimates workdays lost due to a pandemic could cost the country \$6 billion.

- A high rate of absenteeism is observed under normal circumstances; Christmas season creates 20% or more absenteeism rate in some countries/economies.

Analysis of the way in which corporations operate during such periods deserves attention.

# Preparedness Strategy Shifting:2008

- All Hazards planning (Canada, Australia).
- Identification of critical or essential sectors enables a more targeted approach; so far these identified sectors vary among countries/economies. Australia has systematically identified critical sectors such as banking and food distribution (with its just in time nature) and planned sector by sector.
- Reflecting the high degree of “connectedness” in the APEC community, Mexico has modified the color coding of the pandemic scale of WHO. They have added an alert level with action when numerous cases occur outside the country, as well as inside the country.
- Framing pandemic preparedness as a National Security issue, as opposed to a public health issue, is a key to success.



# Practice, Practice, Practice 2008

- **Activities such as workshops (China) Table tops and Scenarios (Indonesia, Canada, Japan, Malaysia,) and actual Exercises (Singapore, Mexico, Malaysia) have proved very useful.**
- **In general the approach of defining critical sectors and approaching them with assumptions and scenarios are in use in the region. (Taipei 11 sectors, Canada 10 sectors, US 17 sectors). Canada stressed the point that assumptions identify which scenarios are used for practice, and that “mixing up” sectors into working groups helped identify how sectors interacted in times of crises.**
- **Sound and detailed assumptions on health and economic impacts create a better environment for more realistic and engaged preparedness. So far these assumptions vary among countries/economies and there are rooms for improvement and harmonization.**

# In Sum....

- Two successful virtual symposia have been convened by APEC EINet over two years, including a total of 27 economies
- Participation grew from 10 economies to 17
- Content preparation, technical testing, planning key
- Preparedness conversation is shifting and technology is robust to use virtual symposia to deliberate and share information in this area.

# Acknowledgments

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**Thank you!**