COMMUNICATING RISK IN AN INFLUENZA PANDEMIC
INSIGHTS FROM SINGAPORE

a presentation to the

ASEF RISK COMMUNICATIONS WORKSHOP
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by

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RISK COMMUNICATIONS

- **Risk**: An *uncertainty* for good or for bad. Facing a risk means a choice has to be made.

- **Risk communication**: Explaining uncertainties to create confidence for choice and action.
GOOD RISK COMMUNICATIONS

- Refers simply to the process of communicating honestly and effectively about the risk factors associated with a health hazard like a pandemic.
- If managed well, it builds mutual respect between government and its population with which it is communicating.
- It helps nurture trust and confidence in getting over the crisis.
- It is not just about educating the public about risks, but also responds to public risk perceptions and seeks to shape human behaviour.
RISK COMMUNICATIONS

Literature suggests 3 types of Risk Communications.

1. Precautionary Advocacy:
   - Watch Out! (alert people)

2. Outrage Management:
   - Calm Down! (provide reassurance)

3. Crisis Communications:
   - “We will get through the crisis together” (guide people through crisis)

Very often, a mix of elements from all three types is employed.
Risk communications theory

There are 3 main risk communication models –

**psychometric**: explains disparity in risk perception between experts and lay public;

**socio-political**: explains in terms of unequal distribution of social and economic power;

**cultural**: explains in terms of cultural perceptions / frames of reference.
Best Practices in Crisis Communications during a Pandemic

Ensuring some level of “command & control” – an institutional structure in place for communicating information to the public rapidly and openly.

Having a well thought plan for crisis communications

An approach that maximises the transmission of relevant information to the public which will empower and help public to take precautionary measures.
RISK

3 KEY PARAMETERS THAT WILL CONVINCE PEOPLE TO TAKE PRECAUTIONS:

i. People need to be aware of the risk to them
ii. They need to believe that effective protective actions are available and have confidence in them.
iii. Risk needs to be carefully managed so that they express the actual risk accurately to prevent mass panic.
SARS
### Vulnerability

**SARS Numbers Worldwide***

<table>
<thead>
<tr>
<th>Country</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>5,327</td>
<td>349</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>1,755</td>
<td>299</td>
</tr>
<tr>
<td>Canada</td>
<td>251</td>
<td>43</td>
</tr>
<tr>
<td>Taiwan</td>
<td>346</td>
<td>37</td>
</tr>
<tr>
<td>Singapore</td>
<td>238</td>
<td>33</td>
</tr>
<tr>
<td>Rest of world</td>
<td>182</td>
<td>13</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>8,099</strong></td>
<td><strong>761</strong></td>
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**Economic Impact on Singapore***

- Visitor arrivals, 1st week of June - 65% ↓
- Hotel occupancy rates, late Apr - 70% ↓
- Retail Sector - 50% ↓
- Jobless rate - >5.5%
- Estimated decline in GDP, directly from SARS - 1% or $875m
- Full-year growth forecasts by Government - 0.5-2.5% ↓ from 3.9%

DPM Lee: “Economy set back by 6 months” - 31 Dec 03
Prof Stewart Auyash:
“Singapore Government’s repeated communication of intelligible health measures about SARS were a key to overcoming the negative effects of the epidemic – socially, economically, politically and medically”

Dr Ali Shan Khan, US Centres for Disease Control and Prevention:
“I can’t think of anything that Singapore could have done better. Based on the knowledge they had at any given time, they made the right set of decisions...Singapore keeps pushing the envelope.”
But we also had our share of harsh criticisms

Toronto Star: “Authoritarian regimes don’t win many popularity contests, but their one selling point is an ability to control their citizens. Singaporeans ruthlessly nipped its SARS problem in the bud with draconian quarantine measures.”

Even a local journalist lamented on our tough measures, claiming that it only showed “just how powerful the Singapore Government is, and how few checks exist to curb it”.
LESSONS FROM SARS

The SARS experience was clearly an underlining factor in our response to H1N1. The key lessons learnt were:

- Decisive leadership and involvement of highest levels of government and of all key Ministries/agencies.

- Transparency and honest communication to reach out to all. We even had a SARS TV channel to ensure that all information available.

- Earning trust and confidence of the population.

- Employing a multi-disciplinary / multi-sectoral approach with no artificial boundaries between medicine and engineering and other disciplines.
Building confidence / Earning trust
SARS EXPERIENCE

1. Prime Minister Goh Chok Tong agreed with a BBC’s correspondent that his remarks could well stoke public fear. He said “Well, I think I’m being realistic because we do not quite know how this will develop. This is a global problem and we are the early stage of the disease. …At the moment, I’d rather be proactive and be a little overreacting so that we get people who are to quarantine themselves to stay at home.”

Dr Balaji, Minister of State for Health, commenting on the decision on closure of schools:

“Unfortunately, we are at the frontline of the disease and have to decide if closure is needed, without the benefit of seeing how developed countries deal with the disease. We do not know enough about the virus to be certain if closing schools is necessary. However, we should err therefore on the side of caution and close the schools”.
SOME PLUS POINTS TO BEGIN WITH?

- A very small island with tightly controlled, fixed number of entry/exit border points;
- The absence of an urban/rural continuum or federal/state/localized problems of governance;
- Benefited from lessons learnt from early media reporting/intelligence on SARS incidents in Southern China and experience of Hong Kong;
- Strong, stable government and a professional civil service.
STRATEGIC ADVANTAGES

- Control of all media outlets gave the Government maximum outreach;

- In more ways than one, it is trust in the government and a compliant citizenry that created the enabling and ideal environment to contain SARS.
“Pushing the Envelope” – whilst Singapore’s response was not much different from that of other countries, whatever we did was seen to be done faster and more aggressively.

Securing our Borders – Infrared Fever Screening System and a multi-disciplinary approach

Contact-tracing Database IT system for command and control put in place by our Ministry of Defence with complex architecture for contact tracing, epidemiology, disease control, frontline operations in record time

Sequencing the Virus – SARS clinical consortium
COMMUNICATION STRATEGY

- Reduce fear & uncertainty by educating public on nature of virus & what they can do to protect themselves and loved ones.

- Be open and transparent in updating public on developments and measures undertaken by Government.

- Pro-actively identify issues and shifts in perceptions.

- Pre-empt and respond swiftly to issues.

- Maintain consistency in Government messages.
HOMEFRONT CRISIS MANAGEMENT SYSTEM (HCMS)

Homefront Crisis Ministerial Committee (HCMC)
Chair: Minister (Home Affairs) [currently DPM]

Homefront Crisis Executive Group (HCEG)
Chair: Permanent Secretary (Home Affairs)

Crisis Mgmt Grp
Lead Agency

Incident Manager

Other Crisis Mgmt Grps from key Ministries
INFLUENZA
PANDEMIC
WHO Dir-Gen acknowledged that H1N1 created a “communications challenge” for those in public health in general and WHO in particular. She observed that “We have never, in public health, had to experience this diversity of channels of communications.” The major problem encountered in communicating risk is often the absence of information on the most basic variables – eg method of transmission, causative agent, the case fatality rate (CFR) or morbidity ratio and precautions necessary.
THE CHALLENGE OF H1N1

Many Uncertainties

1. Baffling statistics from Mexico – after 2 weeks of outbreak in April 2009, with case fatality rate of 2.3%, 48 deaths out of 2062 confirmed cases….whilst elsewhere, case fatality rate was only 0.2%. By May Day, Mexico reported a mortality rate in excess of 5%, far higher than even the Spanish flu of 1918-1919. Dr Fukuda of WHO warned that one-third of mankind – some 2 billion people would be affected by it within 6 months to a year.

2. Background of repeated claims by experts that the new virus could come back in a more lethal second wave along with much media hype.

3. In the most well-characterized study noted in early May, an analysis of New York City cases associated with the high school outbreak showed that out of more than 1000 cases affected, there was no severe cases needing hospitalization.

4. Countries responded differently to the challenge and adopted different strategies worldwide to combat H1N1.
6. Strange disparity in the spread of H1Ni virus eg news reports in August of 250,000 cases in United Kingdom versus only 1022 cases in France.

7. WHO’s Pandemic Influenza phases system requires evidence of sustained transmission between human beings in two distinct parts of the planet at the same time. This led to some confusion as WHO moved quickly from Phase 4 alert to phase 5 and then qualified that “its severity was not completely established”. On 11 June 09, WHO raised global pandemic alert to level 6.

8. Many reports of negative side effects of Tamiflu and conflicting advise given to populations worldwide. And this happened again with advise on vaccines.

9. Critics within Spore and overseas insisted we had to have a all-or-none approach and selective use of quarantine measures was illogical.
Late March/early April, first reports of H1N1 virus in states bordering Mexico – in Southern California and Texas. US Dept of Health & Human Services issues nationwide public health emergency declaration 26 April. By October, National Emergency declared. On closing border with Mexico, US President on 29 April said: “It would be akin to closing the barn door after the horses are out”. Homeland Security Secretary insisted that closing borders “would be a very heavy cost for what epidemiologists tell us would be of marginal benefit”.

In NY, some schools closed but no quarantine or travel advisories. Measures put in place to limit spread, morbidity and mortality whilst minimizing social disruption and cost. NY health Dept used all means possible – press conferences, brochures, pamphlets, advertising, posters and new media to educate public to take simple measures – washing hands, avoiding close contact etc. Ultimately rate of deaths in NY was lower than predicted but numbers of cases and hospitalizations was substantial.
NYTimes(2 May 09) Headlined that “Quick Action by Hong Kong Reflects Experience of SARS”.

28 April, same day that WHO raised Pandemic alert Phase 3 to 4, Singapore raised its DORSCON level GREEN to YELLOW prompting a series of actions. Deputy PM and Minister for Health chaired press conference following day. [Australia, New Zealand and Japan also instituted containment measures to hold the virus at borders for about a month.]
Clear and Simple messages during H1N1

At first press conference, Minister for Health warned that “with 1000 infected cases in Nth America, we can expect a few deaths”,

Use of colorful images and metaphors to describe the challenge of H1N1: “a long war, waves of attack, quick battle, wildfire, enemy intruders still out there waiting to pounce, control measures will ensure slow burn transmission, it should go well if we are alert in detecting, isolating, contact tracing very aggressively, hunting down every possible close contact and quarantining them”....
DISEASE OUTBREAK RESPONSE SYSTEM (DORSCON)

It is a generic framework that enables Whole-of-Government to respond immediately to any outbreak and allows us to respond immediately to outbreaks and to ramp up measures accordingly.

It comprises

- Community measures / guidelines
- Measures in healthcare settings / eg restrictions on hospital visits
- Border health controls / use of thermal scanners / quarantine of travellers from Mexico

It is exercised regularly and made familiar to the public through the media.
# DISEASE OUTBREAK RESPONSE SYSTEM (DORSCON)

<table>
<thead>
<tr>
<th>DORSCON</th>
<th>Level of Public Health Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEN</td>
<td>Negligible to low</td>
</tr>
<tr>
<td>YELLOW</td>
<td>Low to moderate</td>
</tr>
<tr>
<td>ORANGE</td>
<td>Moderate to high</td>
</tr>
<tr>
<td>RED</td>
<td>High</td>
</tr>
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Singapore confirmed its first H1N1 case on 27 May, a young lady returning from New York. Thereafter there were 3 waves of importation of cases of H1N1 – from US, a larger wave from Australia and finally from nearby ASEAN countries.

Our response was as dramatic as Hong Kong comprising 2 phases: **Containment** and **Mitigation**. We activated our Emergency Plans, raised alert levels to buy time for community – wide preparations to handle a pandemic – ie reduce morbidity and mortality through treatment of influenza cases, slowing the spread of influenza to ease the surge on healthcare and maintaining essential services to limit social and economic disruption.
SINGAPORE STRATEGY

PDIP

**PROTECT** BORDERS FROM INFECTED CASES

**DETECT AND ISOLATE** SUSPECT CASES (BY HOSPITALS AND GPs)

**PERSONAL HYGIENE** :
COMMUNICATIONS STRATEGY AT HIGHEST LEVELS CALLING ON COMMUNITY TO PRACTISE GOOD HYGIENE
SINGAPORE’S RESPONSE

Early activation 2 days after first press release on Mexican outbreak 25 April of our HomeFront Crisis Executive Group (HCEG) chaired by Ministry of Home Affairs with Ministry of Health as lead agency. This structure allows for considerable pooling and coordination of resources across all government agencies.

Containment strategy (border controls, isolation, contact tracing, quarantine) to prevent local transmission for over 7 weeks, to buy time to prepare our people psychologically and gear up our system for the community spread phase (ramping up public hospitals, polyclinics to treat all walk-in patients, laboratory facilities & testing etc). Community spread evident only in later half of June 09.
PHASES

Containment
- Imported cases
- Small clusters
[Slow down spread into community to minimize strain on healthcare system]

Mitigation
- Sustained community spread
[ Reduce peak load on healthcare system]
CHALLENGES IN COMMUNICATIONS

1. Preparing public for possible deaths from H1N1 without creating mass panic
2. Confusion arising from announcements on our alert phases
   - 28 April: **GREEN** to **YELLOW**
   - 30 April: **YELLOW** to **ORANGE**
   - 11 May: **ORANGE** back to **YELLOW**
Confusion evident in the responses of Government Ministries & organizations having to amend processes mid-stream.

3. Conflicting information eg advising public to avoid crowded places whilst hosting the Asian Youth Games (AYG). Targeted control measures eg only certain schools closed was much debated.

4. Persuading public that we were not giving up the fight when we ceased border controls, contact tracing and quarantine as we moved into the mitigation phase

5. Challenge also of combating fatigue and complacency in the face of a second wave.
IN RETROSPECT

Did We Over-react?

- **We think RISK is inevitable.** People expect governments to protect them completely from all risk in their daily lives. We know it is impossible. So there will always be a trade-off.

- Singapore’s position is always that it is better to err on the side of over-reaction than under-reaction. Perhaps its because we are a small state. It requires tough decision usually by core leaders and was managed by Minister (Health).

- **Fear can be a constructive emotion.** When people worry about a risk, they pay more attention to it and take action where necessary. Soft warnings and reassurances do not work. But of course unreasonable fear can be unhealthy.
CRITICISMS

- WHO advised against travel restrictions
- Quarantine measures & travel restrictions [used during SARS] were instituted for H1N1 by a number of countries and criticized as pointless and a waste of resources.
- One critic observed that “some countries still look to centuries-old approach to contain the spread of H1N1” and that “pandemics are global, but the political calculation to confront them is decidedly local”.
- Use of thermal scanners dismissed by many.
- Imposition of drastic social distancing measures – esp. by Mexico and other countries incurred costs.
- Countries reluctant and hesitant to switch from containment to mitigation-oriented strategy
- Mixed signals from WHO exposed loophole in WHO’s pandemic alert system.
Little consensus in literature on potential benefits and cost effectiveness of range of non-pharmaceutical interventions like school closures, border screening with thermal scanners, quarantine, social distancing measures.

Recent studies in Hong Kong show that such measures helped facilitate some delay in local transmission but not much.

But success in handling SARS and H1N1 places heavy burden on governments in HK and Spore to respond visibly in the same fashion – with quarantine, border controls and screening and a host of measures in the next pandemic, even when evidence shows it may be a drain on resources.
First we need to acknowledge that public health cannot always be managed solely by the Ministry of Health in any one country. It requires a multi-sectorial / multi-disciplinary approach. It is a global public good that requires more meaningful inter-state as well as inter-agency cooperation.

Given that SEAsia or China will likely be the epicenter of any outbreak, we need also to be proactive about engaging with international organizations and with developed countries outside the region.
Limited financial resources for regional pandemic preparedness planning and implementation

Shortage of epidemiological expertise especially for new and mutating diseases

Bureaucratic lethargy and resistance.

Resistance from some business sectors – eg poultry producers see the avian flu problem through an economic lens rather than a health or security lens.
QUESTIONS ?