



Back to “Business as Usual”

Like or hate the term “business as usual” there is no getting away from the fact that calamities are our business and they go on all year long. The Asian tsunami so captured our attention and inured our minds that “disasters” affecting the people in north west Asia mostly passed under our attention scans. That’s a pity, because burst dams and earthquakes are not unknown in our environment—it is just the outcomes that have been different.



February was foul for people in Pakistan and Kashmir with snow in the high country and rain on the plains. And Iran was rocked by an earthquake. In each incident it seems that a lack of mitigation before the event and a less than adequate response after the event, turned serious events into ‘disasters’.

Disease looms after Pakistan floods kill 350

Disease threatened thousands of flood survivors in Pakistan’s southwest, officials said, as freak rains which have killed around 350 people across the country continued to pour down, reported the China Daily on February 18th. Through February, Pakistan was gripped by a cold and rainy snap with the heaviest rainfall for 16 years.

Troops and authorities tried for days to get medicine, shelter, food, and drinking water to desperate people in Baluchistan province, where 250 died, including 80 killed by a burst dam. At least five villages, home to around 7,000 people, were submerged by waters that poured through the 35 metre high and 300 metre long embankment of the dam, constructed two years ago. About five villages were completely washed away and many houses collapsed after the dam burst near Pasni. Some cars, trucks and buses being driven along a newly built highway in the Pasni region were swept into the Arabian Sea..

The rest of the dead were mainly killed by avalanches in northern parts of the country. Around 2,000 people were missing and tens of thousands have been left homeless throughout Pakistan.

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A Pakistani television crew film the damaged Shadi Kor Dam



Water, water everywhere—even inside the tents

“We are worried about the spread of disease in the area and officials are considering to take immediate measures to stop any possible outbreak,” said Raziq Bugti, media consultant to the chief minister of Baluchistan. The World Health Organisation also warned of possible dangers from infectious and waterborne diseases. A number of doctors along with ample medicines and staff were moved to the flood effected areas to provide immediate medical care/treatment

Pakistan’s President Pervez Musharraf, who flew over the area, announced compensation for all bereaved families and said the damage in Baluchistan had been

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The Official View

“I would like to give a correct picture of what has happened. There was no flood there — except the water kept collecting and people started shifting to higher grounds,” General Musharraf told state television.

(Continued from page 1) exaggerated. "I would like to give a correct picture of what has happened. There was no ... flood there except the water kept collecting and people started shifting to higher grounds," General Musharraf told state television.

But there were continuing problems getting aid to affected people, particularly near Pasni, where the Shadi Kor dam collapsed. Another three small dams collapsed later.

The air force, navy and army lead the massive relief effort with paramilitary troops, police and private aid organisations also taking part. Rescue teams were trying to reach as many people as possible in the shortest time, but faced difficulties as roads had been badly damaged and washed away.

While rains continued across Baluchistan, northern areas were also hit by fresh snow as rescue teams were battling to reach the site of two avalanches in the mountainous region of Abbottabad which killed around 40 people. Bad weather kept them from the area, police said. Police said 46 people were killed in earlier avalanches in Pakistan-controlled Kashmir and scores of houses had been buried.

Village squashed by glacier

Reports from Swat say the entire village consisting of 20 houses, some 15 kilometres from Mankiaal near Kalaam valley was literally buried under tons of ice when a glacier from the nearby mountain rolled down on it. Official circles confirmed the incident but they were unable to give the exact casualties. Scores of people were killed when a thunder-bolt hit the same village in 1992.



The locals of the area say many people had been killed and a large number of others injured. Some reports said 200 residents of the village were feared to have been buried alive under the glacier. Locals said the village is almost wiped out. The roads around the ill-fated village were blocked and rescue teams were finding no entry point to the site to help the affected people.

In Peshawar, three children and their mother were crushed to death when the rooftop of their mud house in the slum area called Miskeen Abad Nothia caved in. The children's



It could be an earthquake, but in this case they are repairing flood damage

father and other residents in the house were seriously injured.

Kashmir Avalanches Death Toll Nears 300

Across the border in Kashmir avalanches and extreme cold killed at least 284 people in the divided Himalayan province of Kashmir, and about 150 others were missing on both sides, Indian and Pakistani Associated Press reported on February 23rd.

Heavy snow gripped the region for over a week and temperatures dropped to minus 34. Avalanches closed roads throughout the region, cutting off Indian and Pakistani residents for five straight day. Indians in one region were ordered to evacuate immediately.

In Pakistan-controlled Kashmir, officials said at least 58 people had been killed by the freezing weather in two weeks, mostly by avalanches. In India-controlled Kashmir, at least 226 people died from the



Soldiers sent to help needed rescuing themselves

weather, and the Indian air force flew in food and fuel to the affected areas.

Officials recovered the bodies of 40 people from their homes in the southern district of Anantnag, said Ashiq Bukhari, a senior police officer. Soldiers and paramilitary troops trekked to remote villages in the Pir Panjal range and rescued more than 100 people stranded in houses completely covered by snow.

The snow began falling in Indian Kashmir on a Friday and the avalanches began Sunday night. Between Friday and Sunday, 41 people were killed. By Monday, another 113 bodies were found. On Tuesday, another 32 were discovered. In Srinagar, restaurant workers found the bodies of four colleagues who were asphyxiated after leaving a coal fire burning in their room to keep warm as they slept.

In some areas, Indian army soldiers used explosives to trigger avalanches and pre-empt future slides. Soldiers rescued 58 people in several villages, and army helicopters dropped food packets



Residents lining up for evacuation

and blankets for rescue workers to distribute to stranded residents.

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Iran earthquake death toll near 500

At least 490 people died in a 6.4 magnitude quake which struck south-eastern Iran on February 22nd leaving thousands of people homeless. Survivors spent the nights outdoors in freezing conditions on snow-covered slopes, unable or too fearful to return home.



A general view of the quake-damaged village of Dahouyeh

Rescue workers searched through rubble, often with their bare hands, as blocked roads made it impossible for heavy equipment to reach some of the 50 villages affected by the quake. About five villages were completely destroyed.

In a cemetery near the town of Zarand, about 700 kilometres south-east of the capital, Tehran, gravediggers dug plots as bodies continued to arrive. "What has happened? Why am I alive," a grief-stricken woman named Nahid cried over the graves of her mother and brother, Reuters reported. But there was a renewed hope as rescuers pulled two young women from under rubble in Houtkan, more than 24 hours after the quake.



A picture than tells it all

One of them, who emerged almost unscathed, said she had sheltered under the frame of a door as soon as she started feeling the tremor.

The disaster prompted international offers of aid, including from the United States, Iran's arch foe.

Media reaction to the earthquake was sharp. Coming just 14 months after a much greater disaster at Bam, the quake in Kerman province prompted some newspapers to criticise the authorities' response. Websites too questioned the readiness of the country to cope with disasters, while television reports painted a different picture of the relief efforts.

State-run Iranian TV was quick to show scenes from the

devastated villages, with footage of casualties being loaded onto military helicopters. The TV said units from the Revolutionary Guards and the Basij Resistance Force, an Islamic militia, were taking part in relief efforts, and quoted Supreme Leader Ayatollah Khamenei and President Khatami urging the emergency services to speed up their rescue efforts.

During the bulletin, national TV switched live to local *Kerman Television*, where the presenter praised the quick response of the emergency services. The relief operation had started in the early morning, she said, and there was no lack of ambulances. The presenter conveyed the official line that there was no need for outside assistance. Although many people were homeless, she said, the regional emergency services had everything under control.

Despite this insistence that international help was not needed, Iran Daily reported that Germany has offered to fly in a disaster-relief team to help rescue people buried under the rubble. The English-language *Tehran Times* also noted that Turkey and Pakistan had offered assistance.

Editorials in pro-reformist papers adopted a much sharper tone. *Aftab-e-Yazd* accused Iranian officials of failing to learn the lessons of the Bam earthquake, in which 31,000 people died. "In many countries today even strong earthquakes don't claim the lives of more than ten people... Unfortunately yesterday's earthquake showed a repeat of the lack of organisation that occurs when it comes to aiding the quake-stricken people." "If we cannot stop earthquakes happening, why can't we learn from dozens of quakes in the past about how to cooperate?" *Aftab-e-Yazd* asked.

Another pro-reform newspaper, *Shargh*, said the earthquake proved Iran's vulnerability but also exposed how the authorities had been unable since Bam to overcome "weaknesses" in emergency situations. "The earthquake was another wake-up call for officials not to forget all the plans and projects that were ratified after the Bam quake." An Iranian commentator told the BBC that press criticism of the government following natural disasters was becoming increasingly vociferous, from across the political spectrum.

Contributors to Iranian websites also expressed dismay at the unfolding events in Kerman. One comment posted on the ultra-conservative www.baztab.com urged better planning to prevent quake damage, comparing Iran with better-equipped Japan. A posting on www.mellimazhabi.org, the site of Iran's National-Religious Forces, accused the state of being incapable of providing minimal relief, "while people are pulling out bodies from under the rubble with their bare hands". ■



Risk Communication is about Credibility

Losing credibility is the greatest risk facing risk communicators was the message science communication expert Doug Powell gave to attendees at the 2004 New Zealand Food Safety Authority conference. Dr Powell is associate professor at Canada's University of Guelph and scientific director of the Food Safety Network. He himself is no stranger to controversy and questions of integrity and credibility.

While praised by some, he is vilified by Greenpeace as an apologist for chemical companies and GM food. In 1997 he wrote *Mad Cows and Mother's Milk* about risk communication, or as the subtitle states, "the perils of poor risk communication." The book illustrates what can go wrong when the public is not well informed about the risks associated with new technology and provides guidance on what constitutes good risk communication.

Mad Cows and Mothers Milk sets out to demonstrate that the food industry is highly vulnerable to public reaction when risks are not communicated well. People want food to be "healthy" and "pure." And they have lots of alternative choices when certain foods are perceived to be otherwise. The effects on food producers can be devastating.

A major portion of the book consists of case studies. The first chapter describes the British "mad cow" disaster. Public concerns about linkages between bovine spongiform encephalopathy (BSE, "mad cow disease") and Creutzfeld-Jakob disease (CJD) in humans caused beef consumption to drop 11 per cent in the European Union (EU) in 1996 and cost EU governments US\$5 billion in compensatory subsidies to the beef industry. Had the British government and beef industry taken this matter more seriously during the 1980s and early 1990s and had they been more honest in earlier statements to the public, the blood baths (financial, and death to hundreds of thousands of cattle) which followed might have been avoided.

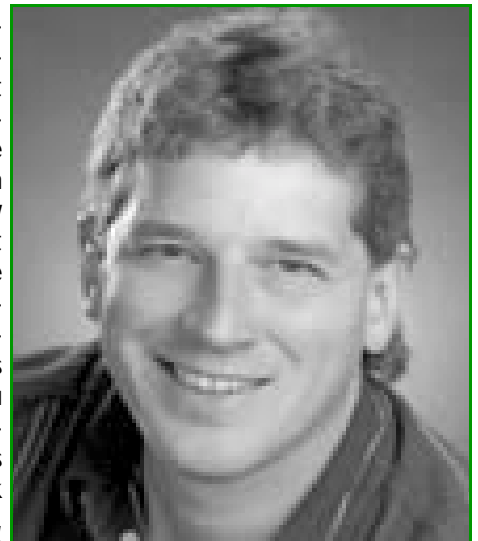
So what can be done to ensure the right kind of messages get out to people – and in the right way? "There is an assumption", Doug says, "among government and industry that the public wants a risk free world. Actually people don't."

"People make risk free decision every day – and they can handle levels of risk. People just want to know what it is that you know. They want to know who is in charge and what you are doing to reduce the level of risk."

There was a time when it was thought that good communication would drive conflict away but on its own it doesn't. You need good information and management as well

To present this information successfully, he says you need three things: good science (information), good communication and the ability to make good management decisions. There was a time when it was thought that good communication would drive conflict away, but it doesn't. You need all three things.

Risk communication is an interactive process. It is not about proclaiming to the masses. So much of it is culturally based and that also has to be taken into account and traditional practices considered. You need to understand people's perception of risk and work with it, using stories and examples.



Dr Doug Powell

Regulators need to say what they know and what they don't know. They must admit uncertainty because there will be other groups ready to pitch in with what they know. If you come out with some "facts" these groups will find a scientist who can discredit those facts and the public will be left feeling that they have not been told the whole truth.

Doug says (in food science) stating facts is dangerous and likely to alienate the very people you are trying to bring into the fold. Science, he says, is all about disagreement. Hypotheses are made, tests done and from there a recommendation or a suggested best practice is put forward – but not a fact. "Do that," he warns and if someone pokes holes in the facts as you see them, you'll argue back and forth and eventually lose credibility with the public. And once you lose credibility with the public you will never be able to tell them anything.

Doug commented, "in New Zealand I hear concerns about GM food, about production – organic versus conventional – but I haven't seen a lot of concern about the basic microbial issues. Maybe it's because you haven't had a large outbreak. I think you need to continue with the same messages – clean, cook, cover, chill – it can be really lonely because no body really cares until a crisis comes along, but when the crisis does come, you have to have been putting out the same message for it to be resolved successfully. Does all this sound rather familiar to infection control advocates?"

He believes one area in which New Zealand could improve is in evaluating how well (food safety) messages were reaching our audiences, and what effect they were having. On any issue there will be five percent of the public who will agree with you, another five percent who will hate everything you do; the other ninety percent just want more information. ■

(Much of this article is drawn from "When Fact is a four letter word" food focus, January 2005 pp 14-15 – published by the Food Safety Authority, not available on line.)



Ten Basic Questions for Planners to Ask

Ever been at loss for some basic questions to ask about your level of preparedness in emergency management, security and business continuity? While there are many questions to be asked, Paul Kirvan, writing in the **CPM newsletter**, offers ten questions that should help you determine if an internal department or independent provider could use assistance in emergency management, security and business continuity. You probably won't need to go through more than half the questions in any category to determine if the department or independent provider needs assistance.

Emergency Management

1. When was the last time you experienced a crisis or disaster situation that threatened your organisation, your employees or your family?
2. What was the outcome of that event?
3. How do you currently respond to emergencies and other crisis situations?
4. What procedures are in place to mitigate the severity or outcome of potential disasters?
5. How would you describe your organisation's level of preparedness for dealing with crisis situations?
6. What is your normal level of interaction with emergency services, such as police/fire/ambulance, and city/district offices of emergency management?
7. Faced with an emergency, how would you interact with those same public sector organizations?
8. What policies and procedures have you established to deal with emergency situations?
9. How do you measure the overall effectiveness of existing emergency and crisis response programs?
10. How often do you test your emergency and crisis response plans, and when was your last test?

Physical Security

1. When was the last time you experienced a security breach that allowed someone's unauthorized access to your premises?
2. What was the outcome of that occurrence?
3. How do you currently control access to your properties for employees and guests?
4. How do you identify potential security threats within your premises?
5. How do you identify potential security threats external to your premises?
6. How do you monitor your property's perimeters?
7. How do you currently respond to existing security threats?
8. What policies and procedures have you established to

protect your physical premises from unauthorized access?

9. How do you measure the effectiveness of the physical security programs currently in place?
10. How often do you test your physical security programs, and when was your last test?

Business Continuity

1. What are your most critical business processes and supporting systems (e.g., payroll, A/P, manufacturing)?
2. If those processes and systems were no longer available, how would you get yourself back into business?
3. How do you currently minimize the damage to your business from disabled or compromised information systems?
4. What procedures do you initiate to recover systems and processes that have been disabled or destroyed?
5. How will your employees respond in an emergency situation, especially one that involves evacuating the premises?
6. If you were no longer able to access your office, for whatever reason, how would you restore business operations?
7. Facing a disaster situation, how would you notify employees, family members, local authorities, and clients?
8. What policies and procedures have you established to keep your company in business following a crisis or disaster?
9. How do you measure the effectiveness of these response, recovery and restoration programs?
10. How often do you test your business response and recovery programs, and when was your last test?

Information Security

1. When was the last time you experienced a breach of security that resulted in damage to valuable company information?
2. How do you currently ensure the confidentiality, integrity, and availability of your firm's critical data and information technology?
3. How do you protect your communications networks from unauthorized internal or external access?
4. How do you protect the information being communicated among your staff and external users?
5. How do you identify and validate potential threats to your information systems and networks?
6. How do you identify and validate potential vulnerabilities to those assets?
7. How do you protect your employees from identity theft?
8. What policies and procedures have you established for dealing with data protection and network security?
9. How do you measure the effectiveness of the security programs you have in place?
10. How often do you test your information security programs, and when was your last test? ■

Millions of years ago, there was no such thing as the wheel. One day, some primitive guys were watching their wives drag a dead mastodon to the food & fire area. It was exhausting work; the guys were getting tired just watching. Then they noticed some large, smooth, rounded boulders and they had a great idea! They could sit on top of the boulders and get a better view of their wives working. This was the first in a series of breakthroughs that ultimately led to television...and later to the remote control.

Apocalypse or 'Catastrophe': And the Value of Life

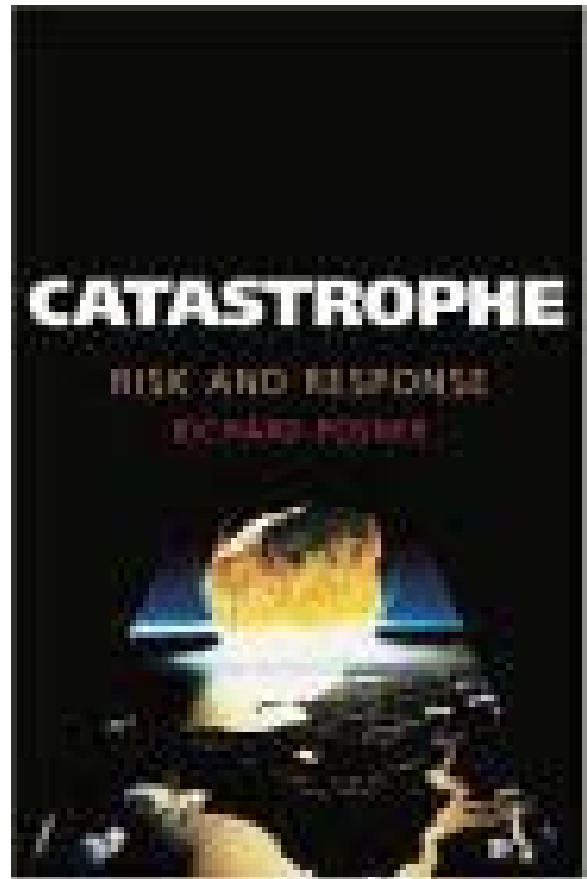
An asteroid colliding with the earth could cause the extinction of our species. Is this a risk worth worrying about? More important, is it a risk worth doing something about? Most of us would say that such an event is beyond our ability to influence so let's get on with less esoteric questions. However, Richard Posner, a judge on the United States Court of Appeals for the Seventh Circuit, who produces more books in his leisure hours than most authors do working full time, thinks otherwise. His latest offering is, *CATASTROPHE: Risk and Response*, 322 pp. Oxford University Press.

We should also, he argues, be doing more about other improbable catastrophes. Global warming could cause the melting of icecaps, releasing huge amounts of methane that accelerate further warming, forming a cloud layer so dense as to block out heat from the sun and cause us to go into a deep freeze. High-energy particle accelerators, used by physicists to investigate the fundamental laws of nature, could produce particles that create hyper-dense "strange matter" that in turn might attract nearby nuclei, thus growing larger and attracting ever more nuclei, until the entire planet is compressed into a sphere no more than 100 meters in diameter.

Does all this sound a bit like fodder for Sunday papers or TV infotainment? Even his scenario of bioterrorists genetically modifying an incurable strain of smallpox that wipes out the human species is a little hard to swallow. "Catastrophe" lives up to its title. But it is no sci-fi potboiler, and there will be no movie.

Posner made his name defending an economically rational approach to the law, and his new book is dense with complex calculations of the expected costs of catastrophic events, and the amount worth spending in attempts to avert them. The expected costs of a future event are the costs of that event, if it should happen, multiplied by the probability that it will happen. Thus, if I offer you \$1,000 if a tossed coin turns up heads, the expected cost of my offer is \$500. (Suppose I offer you \$100,000 if a card drawn at random from a full pack is the ace of spades. Would you prefer that offer to \$1,000 tied to the toss of the coin? Anyone interested in maximizing his assets would: the expected cost of that offer to me -- and hence the expected value to you -- is \$1,923.)

When a catastrophe is really catastrophic -- and Posner, it should be emphasized, isn't writing about "minor" disasters like the terrorist attacks of 9/11 -- it can have a significant expected cost, even if the event is extremely improbable. Sometimes called the "zero - infinity" calculation. Consider, for example, the risk that a high-energy particle accelerator will produce a "strange matter" disaster. The official risk-assessment team for one of these accelerators, at the Brookhaven National Laboratory, offered a series of estimates, one of which puts the annual risk of a disaster at one in five million. That seems a very small risk. But since the disaster



would kill six billion people, that estimate gives it an expected cost of 1,200 lives per year. Even if the risk is estimated more conservatively at one in a billion, it has an expected annual cost of six lives. Would we build such an accelerator if we knew that six people would die every year in which it operates? I suspect the answer would depend on how far away from us the device was located.

In the third and most difficult chapter of "Catastrophe," Posner explores ways of calculating the costs of catastrophic risks and of possible responses to them. He rebuts the claim that it is not cost-effective to do anything about global warming, an argument that invariably relies on heavily discounting disasters that will not occur for 50 or 100 years. We may wish to invest money to generate wealth rather than spending it to avert gradual global warming, but, as Posner suggests, the victims of the warming are likely to be concentrated in poor countries and will not necessarily benefit from the increased wealth generated by the richer nations. (On the other hand, abrupt, spiraling global warming that flips over into a deep freeze could kill us all, and then increased wealth will not do us any good anyway.)

Any economic discussion of the expected cost of catastrophe must put a dollar value on human life. Some will object to this in principle, but unless we can agree on a figure, it will be impossible to decide what expenditure is worth incurring, to build safer roads, say, or to keep minute quantities of toxic

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chemicals out of our drinking water. Economists working in this area usually investigate how much people are willing to pay to reduce the risk of death -- for example, by buying safety devices for their homes, or preferring to work in a safer occupation for a lower wage than they could get in a high-risk occupation. The reduction in risk is then multiplied by the sum the average person is willing to pay for it to arrive at the value people implicitly place on their lives. Currently, most government departments use a figure of around \$US5 million, give or take a million or two. Third world governments may have different views.

One problem with this approach is that most of us assess large risks differently from small ones. We may pay a steep price to reduce a risk of one in a thousand to one in ten thousand, but we are not much concerned about reducing a risk of one in a million to one in a billion. Yet a rational person who is interested in continuing to live should be willing to pay something for this reduction in risk.

Posner, however, suggests that the value of a human life actually varies in accordance with the degree of risk we are considering -- so that the loss of each human life in a highly improbable catastrophe should be valued only at \$50,000 instead of the \$5 million that it would be valued at if we were considering a more likely disaster. That is, the real worth of our lives depends upon the magnitude of the numbers dying with us (and where we live?).

Posner rapidly brushes aside some of the larger ethical issues, especially the question of how we should view the fact that the extinction of our species would prevent the existence of all future generations of human beings. Barring catastrophe, our species may continue to exist for millions of years, gradually overcoming our problems and achieving a level of happiness, fulfillment and moral virtue -- including concern for the well-being of other species -- that far exceeds anything we have yet known. Arguably, this makes a catastrophe that causes our extinction a much greater tragedy than the "mere" death of six billion people.

Posner's practical recommendations seem calculated to parcel out irritation to everyone. Physicists will not like the doubts he casts on particle accelerators. Liberals will be alarmed by his support for greater police powers to counteract bioterrorism, including censorship of scientific publications that could help terrorists devise new biological weapons. Conservatives will dislike his support for taxes on carbon dioxide emissions, and will be apoplectic at his proposal that we hand over some of the nation's sovereign powers to an international environmental protection agency to enforce an improved version of the Kyoto Protocol on global warming.

Still, we would be well advised to set aside such minor discontents and take the message of this book seriously. We ignore it at (a small risk of) our (very great) peril. ■

Emergency vs Disaster

During the mid 90s Health led the way in dropping the term "Disaster" to describe emergencies. With the passage of time and introduction of new people to emergency management, questions on the use of the term disaster are regularly raised. Peter Wood from the Ministry of Civil Defence and Emergency Management offers this background. He qualifies his comment with a quote from Mark Twain, "If I had more time I would have given you less"

In the drafting of the CDEM Bill there was vigorous debate over the use of "disaster" and "emergency". From this debate, "disaster" was dropped as a term to use in the Act. "Disasters" may well result when planned emergency response arrangements (or lack of) are overwhelmed. The word disaster can be used in that context.

In Australia, EM usage is similar to ours. The Australian Emergency Management Glossary defines it thus.

Emergency vs Disaster

Each specialist field describes hazardous events in different ways, and there is also variation between the States and Territories. Thus, the hazardous events are variously labelled as 'accidents', 'incidents', 'emergencies', and 'disasters'; depending upon the scale of the event, the number of organisations involved, and the ability of the organisations to cope within their normal resources.

For example, a major vehicle accident may be labelled an 'incident' by the emergency services, but may be labelled a 'disaster' by an emergency medical facility. A general movement away from the terms 'counter-disaster' and 'disaster'

towards the term 'emergency' has occurred in Australia over the last few years. The term 'emergency' is generally used in compound terms, such as 'emergency management', in preference to 'disaster'. The terms 'disaster' and 'disaster management' are, however, still used in Australia to describe events of a truly disastrous nature."

In an international context, the distinction between Emergency and Disaster is blurred, see UN Dept of Humanitarian Affairs Internationally agreed Glossary of basic terms related to Disaster Management" 1992; also the UN ISDR "Living with Risk", 2004. An extract from "Living with Risk: Basic Terms for Disaster Risk Reduction" reads - "Emergency management ... also known as disaster management". The full definition of disaster from the latter source is -

"Disaster

A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources.

A disaster is a function of the risk process. It results from the combination of hazards, conditions of vulnerability and insufficient capacity or measures to reduce the potential negative consequences of risk. "

Our recommendation is, use "Emergency" in the emergency planning context. **"Disasters" may well result when planned emergency response arrangements (or lack of) are overwhelmed.** The word disaster can be used in that context.

Provide PPE training before you need to use it



While bio-terrorism makes the headlines, your next CBR (Chemical, Biological, Radiological) incident will most likely arrive courtesy of an industrial, agricultural or transport “accident”. You may have comfort from a belief that the Fire Service will decontaminate all those affected. Not so. Empirical evidence suggests that 80% of those contaminated (and the worried well) will self present at your front door. That is not a good time to rig up Heath Robinson decontamination showers and dig your unused PPE gear from the back of a cupboard.



While there has been a great deal of work going on at the policy level on CBR and Personal Protection Equipment, so far, there has been little activity in training key staff to actually wear and be comfortable operating in PPE. St John Northern, realising the risk to its staff who may have to go into hot zones, brought Peter Croft, the Assistant Co-ordinator Special Operations Training, NSW Health Counter Disaster Unit, to Auckland to run a three day course for its SERT team members. The course also attracted attendees from the Fire Service and Police Special Tactical Group.



PPE comes in different levels of protection. In Health there are four levels, from A the highest down to D. The Fire Service also has four levels, from 1 the lowest up to 4. The Auckland course focussed on the use of level A suits but the basic principles apply to all levels. Compared with the aprons, overalls, gauze and gas masks of yesteryear, modern PPE, at whatever level, is really impressive and gives the user real confidence in their own safety. However it is not a quick fit. Getting “robed up” and disrobed requires assistance and a methodical process. For all those involved, training, training and more training is the order of the day .

Simple procedures, like cannulation and intubation suddenly become major procedures when peering through a visor and wearing two layers of thick gloves. Proficiency only comes through practice, practice and more practice.

The course was voted a success. Attendees, already familiar with using PPE, found it a challenge and worthwhile learning experience. The lesson they took away was clear – without regular use and familiarity with PPE, the user is a danger to themselves, their colleagues and their patients. When you order, or are given PPE by our benevolent Ministry, make sure you budget sufficient time for staff training.

Getting dressed . . . and undressed takes time and help

Intubation suddenly becomes a major task



Ambulance and Police fashion show. The Fire level 4 suits are even more restricting

Rumour Surveillance and Avian Influenza

Keeping track of infectious disease outbreaks within your own country through syndromic surveillance is relatively straight forward. With the rapid and frequent flow of people across international borders it is also important to keep track of what is emerging in other countries. But how do you do that in an environment where not all countries have the will or ability to be both accurate and current in their disease outbreak reporting? It is time to formalise the new tool on the block, Rumour Surveillance.

Rumour surveillance and avian influenza H5N1, by Samaan G, Patel M, Olowokure B, Roces MC, Oshitani H, and the World Health Organization Outbreak Response Team, in *Emerging Infectious Diseases* March 2005 issue, describes their enhanced rumour surveillance during the avian influenza H5N1 outbreak in 2004

In January 2004, 14 persons in Vietnam were admitted to provincial hospitals with severe respiratory illness. Avian influenza H5N1 was detected in samples from 3 of these patients. Health officials and the World Health Organization (WHO) were concerned, as these were sporadic cases of an influenza strain that normally infects birds exclusively. Furthermore, little was known about the extent of the outbreak, its potential for international spread, and the possible evolution of a pandemic influenza strain. WHO issued an international public health alert on January 13, 2004, to inform the world about the outbreak.

News of the outbreak led to international anxiety and the propagation of unofficial outbreak reports or disease rumours. These rumours could have led countries to impose trade and travel restrictions with negative social, economic, and health consequences. To protect both the international community and the affected countries, WHO introduced enhanced rumour surveillance for reports of avian influenza H5N1, a process of investigating unofficial reports of disease events to determine their veracity. Rumour surveillance aims to decrease the potential for misinformation and misunderstanding and to inform the public and health officials about disease outbreaks, facilitate a rapid response, and promote public health preparedness.

Rumour surveillance can be a passive process, where rumours are identified from media reports, professional groups and the public; or an enhanced system where rumour surveillance is intensified by actively seeking out rumours and undertaking more rigorous follow up. This surveillance includes analyzing more media sources and regularly requesting information from the WHO network about outbreak events. Previously, enhanced rumour surveillance has been used during public health emergencies, such as the Chernobyl nuclear accident in 1986 and the outbreak of Ebola in Uganda in 2000, but not in multi-country or regional outbreaks.

The importance of rumour surveillance is likely to increase as the international community considers the revised draft

of the International Health Regulations (IHR). Article 8 of the IHR Working Paper states, "WHO, in consultation with the health administration of the State concerned, shall verify rumours of public health risks which may involve or result in international spread of disease."

During the avian influenza outbreak, WHO's Western Pacific Regional Office (WPRO) was the focal point for identifying rumours and coordinating their investigations in the region. WPRO covers 37 nations and stretches from China in the north and west, to New Zealand in the south, and to French Polynesia in the east.

WPRO designated a rumour surveillance officer to develop and implement the rumour surveillance system for avian influenza in animals and humans. This officer actively assessed media sources and email-based public health discussion and regularly contacted the WHO network to identify rumours. Media sources included journalists visiting WPRO and Web sites for television networks and newspapers. Most were English-based media sources; however, some were also in Japanese and Arabic. To increase the scope of the active media search, this officer also accessed the Global Public Health Intelligence Network, an electronic surveillance system that continuously monitors >600 media sources and biomedical journals in a number of languages, including Chinese, Spanish, English, and French.

Each rumour was followed up by an email or a telephone request to the relevant WHO country office to investigate its veracity. The WHO country office in turn sought verification from the country's health authorities. Overall, the onus of the verification process was in the hands of the affected countries' health authorities. The authorities had to demonstrate to WHO that appropriate investigations were conducted to deem rumours correct or incorrect. To ensure this process, WHO sometimes supported rumour verification by assisting in laboratory testing or shipment of isolates.

Once available, the outcome of the investigation was disseminated to WHO stakeholders, including the outbreak response team. For events reported in the media, WPRO's media officers made information publicly available through press releases and media interviews, as well as providing up-to-date information on the WHO Web site.

From January 20 to February 26, 2004, a total of 40 rumours were identified, most within 4 weeks of the outbreak alert. The rumours concerned 12 countries and 1 special administrative region. Of the total rumours received, 19 (48%) were received from the media, 18 (45%) from the WHO network, 2 (5%) from embassy staff living in affected countries, and 1 (2%) from ProMED Digest with a media source as the origin. Nine (23%) rumours were confirmed to be true events: 5 in China and 1 each in Cambodia, Japan, Laos, and South Korea. Of the incorrect ru-

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mours, 6 were in China, 6 in Laos, 4 in Vietnam, 4 in Hong Kong, 3 in Cambodia, 2 in Germany, and 1 each in Bangladesh, Indonesia, Japan, Malaysia, Saudi Arabia, and Singapore.

The average period for verification of true events was 2.7 days (range 1–5 days). The average period to verify that a rumour was incorrect was 9.3 days (range 1–26 days). Sixty percent of the rumours related to human outbreaks, of which 1 was true, and 40% to animal outbreaks, of which 8 were true.

WPRO's enhanced rumour surveillance system identified many rumours. Most were identified in the first few weeks after the public health alert. A similar pattern was also observed during the 2003 SARS outbreak, when most rumours were received within the first 7 weeks of the public health alert. The decreased rate of rumour detection later in the outbreak is consistent with Allport and Postman's basic law of rumour. According to this law, the amount of rumours in circulation is roughly equal to the importance of the rumour multiplied by the uncertainty surrounding the rumour. As more information became available about the outbreaks and about the H5N1 virus, fewer rumours circulated. This decrease was despite the fact that the importance of the disease remained high because of the ongoing risk for evolution of a pandemic influenza strain.

Through rumour surveillance, WHO assisted affected countries by issuing guidelines, providing technical expertise, and mobilizing supplies. Unaffected countries also took action by banning the importation of poultry from affected countries. This action was crucial in preventing the further spread of avian influenza.

An important part of rumour surveillance is the timely dissemination of accurate information to reduce misunderstanding and unwarranted concern, especially for rumours reported in the media. One example was the need to address the international concern that arose about the rumour that pigs were infected with avian influenza. If the rumour had not been reported to be incorrect publicly after the verification process, health authorities may have heightened avian influenza surveillance to include the investigation of persons with symptoms of influenza and a history of contact with pigs.

The literature lacks guidance on how to establish and operate enhanced rumour surveillance during large outbreaks. Based on the evidence from this programme and the recommendations in standard texts on public health surveillance, the suggested criteria for developing rumour surveillance are:

- 1) Define the goals of surveillance as part of an early warning system in which each rumour deserves investigation to determine its veracity;
- 2) Apply a case definition that will have a high level of sensitivity (and therefore a relatively lower specificity) to identify the event of interest early in the outbreak;
- 3) Articulate clearly the steps to be undertaken to assess the veracity of the rumour, the criteria for deeming the verification process complete, and the ethics and confidentiality in conducting investigations;
- 4) Clarify the actions to be taken if the rumoured events are true, or incorrect, or if the response of the verifying authority lacks credibility;
- 5) Delegate responsibility for data collection, management of the rumour database, and verification to a person trained in surveillance. This person must have access to relevant national and international networks and appropriate negotiation skills to investigate the veracity of the rumours. In selected instances, multilingual staff may be essential;
- 6) Include among the data sources print and electronic media, the Global Public Health Intelligence Network, national health authorities, and professional bodies and networks. Consider mechanisms for the public to report rumours through a hotline or an email address;
- 7) Develop mechanisms to provide regular updates on current verification activities, the number of rumours investigated, and their outcomes to the outbreak response team;
- 8) Provide regular feedback on the outcomes of investigations to those who provided data, and where appropriate, to the international community; and
- 9) Evaluate the efficiency and effectiveness of the investigations and upgrade the rumour surveillance system through a process of continuous quality improvement. ■

Sickness linked to dumped containers

An outbreak of disease along the Somali coastline is feared to have been caused by illegally dumped toxic waste containers that were broken up by the Asian tsunami.

The United Nations is sending inspectors to assess the pollution, which follows the deaths of about 300 Somalians from the initial impact of the waves.

Nick Nuttall, a UN spokesman, said: "We have reports of hazardous waste -- including radioactive materials -- being broken up by the tsunami. We also have reports from people in fishing villages suffering a variety of ailments, from

mouth bleeds, nasty respiratory diseases and skin disorders to abdominal haemorrhages."

The incident is a reminder of our exposure to unwanted nasties being accidentally or purposely dumped in or near our territorial waters. Those seeking a cheap solution to hazardous waste disposal are no different to those throwing trash out of car windows. They don't care where it goes as long as they are not caught and made to pay for the clean up.

Even where a container washes onto a beach we may not be aware of the danger before those with contaminant related illnesses start to present to our health providers.

This is another case where public education before the event may be our best defence. ■



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Articles and comment on emergency management issues are welcomed

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Up coming Events

21-22 March 2005
3rd Annual Enterprise Wide Risk Management Conference
Spencer on Byron, Auckland
Cost \$1795 + GST
More information from www.conferenz.co.nz

16 - 20 May 2005
14th World Congress on Disaster and Emergency Medicine
Edinburgh, Scotland
Cost £620 before 4 May
More information from www.wcdem2005.org

Editor's soapbox

The mounting concern over our winter flu vaccine provides an illuminating Risk Communication case study. Compare this incident with the criteria offered by Doug Powell (page 4).



New Zealand's supply of flu vaccine for the coming winter has been delayed after the French manufacturer discovered potential problems with its effectiveness. Ministry spokesman, Dr Stewart Jessamine said that although the vaccine would protect against two of the three strains most likely to be in circulation in New Zealand it may not protect people against the third strain, ironically known as A/Wellington/2004(H3N2). News of the vaccine shortage followed hard on the heels of a report, picked up by all main stream media, that an influenza pandemic could kill 3700 people, put 20,000 more in hospital, with one million more needing to visit a GP.

Each year about 700,000 doses of flu vaccine are administered to New Zealanders, including the elderly, people with chronic respiratory disease and health workers. That's 1 in 6 of the population and with the vaccination programme usually beginning in late March, Primary providers were becoming a tad fractious at the lack of information available on vaccine supply. In an environment where timing is everything and perception is reality, the response by the Ministry, Medsafe and Phamac could, perhaps unfairly, be seen as duplicitous.

During the northern winter government agencies paddled furiously to keep a shortage of flu vaccine under control. The shortage, brought about by manufacturing problems had the potential to influence elections as significant as that for US President. Opposition parties here have taken note. With an election due in the spring they have seized the opportunity to blame the government for the delay.

The National Party health spokesperson Dr Paul Hutchison claimed this was potentially is one of the worst public health crises for a long time and Health Minister Annette King has not been honest with vulnerable people, whose lives could be threatened. While that can be dismissed as political rhetoric and spin, it creates uncertainty and confusion in the minds of the vulnerable public to whom the vaccine is targeted.

This "ill wind" does however offer an opportunity. With media interest attracted to flu vaccine and pandemics, use that interest to reinforce the message that New Zealand is leading the world in having plans for dealing with infectious diseases. We are in a good position to be able to cope should we be faced with a pandemic, or shortage of flu vaccine.

Bruce Parkes

Effectiveness of Avian Influenza Vaccines Debated

As governments and researchers race to develop vaccines against Asia's deadly bird flu, experts are debating their effectiveness against a versatile and resilient virus.

Vietnam, the country worst hit by the H5N1 strain, is testing vaccines for poultry and humans. The United States is also preparing trials for a human avian influenza vaccine.

Thailand, the world's fourth largest chicken exporter before the epidemic hit last year, this week reversed its opposition to vaccines and approved a limited treatment plan.

"There is positive development on all vaccines," Hans Troedsson, Vietnam representative of the U.N. World Health Organization (WHO), said on the sidelines of a bird

flu conference in southern Vietnam's Ho Chi Minh City.

"If everything goes well, there might be a possibility of having a (human) vaccine available even this year or next year," he told Reuters. "Remembering that of course if the strain changed, the vaccine developed now is the vaccine against the current strain so it might be less protective, but it's still important," Troedsson added.

Researchers at Vietnam's National Institute of Hygiene and Epidemiology last week reported favourable results after testing a human vaccine on mice and chickens. Results from monkeys would be known by early March, before the vaccine could be tested in humans.

"It looks promising but it's bit too early to say how successful it could be," Troedsson said. ■