Health Emergency Management in New Zealand

HEMNZ Bulletin

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Drongos: are "manna from heaven"

To our readers in New Zealand and Australia, "drongo" is a derogatory term often used for someone of limited intellect or common sense. But to the rest of the world (and even Australasian bird watchers) Drongos are a sub family of small passerine birds. They were previously classed as the family Dicruridae but that has been much enlarged to include a number of largely Australasian groups, such as the Australasian fantails, monarchs and paradise flycatchers.

These insect eating birds are found in usually open forests or bush. Most are black of dark grey in colour, sometimes with metallic tints. They have long forked tails and short legs. They can fly catch or take prey from the ground. They do not appear to have any behavioural traits that explain the colloquial use of the term.

And it is the behaviour of the avian drongos which has caused an avian flu alert. ProMED reports that Malawi dispatched blood and tissue samples to neighbouring South Africa on December 16th to be tested for avian influenza after thousands of migratory birds were found dead on a hill in the central Ntchisi district about 200km east of the capital, Lilongwe.

Agriculture officials expressed alarm after local villagers started scooping up the dead fork-tailed drongos - known locally as namzenze - to eat. "Someone alerted police that people are feasting on mysterious manna from heaven," said Wilfred Lipita, director of livestock and animal health in the Ministry of Agriculture and Food Security. "We sent officials to caution the people not to eat them, since they may have the avian flu."

With everyone on the alert for avian influenza the official test results will be awaited with interest but not trepidation. Although it is not unheard of for one particular avian species to be more susceptible to the virus, it seems unlikely that only one type of bird in a region would be affected. The ProMED moderator observes that the description of "manna from heaven" made him wonder if the birds were literally falling out of the sky. If that were the case, he was inclined to think that the cause would be a metabolic toxin of some kind.

With Africa being at the end of the migratory bird flight path the search for signs of avian flu goes on. ProMED also reports that official documents show bird flu has reached Libyan farms

Although Libyan authorities repeatedly denied the presence of the bird flu virus on Libyan soil, Libyan media sources on the 9 December disclosed that they have a copy of documents which prove that the Libyan security ministry and senior officials of the Inspection and Control Department were aware and admitted to the Libyan prime minister, Dr Shukri Ghanim, that the bird flu virus is widespread in a number of Libyan poultry farms in the Benghazi region (north east Libya).

"Information reaching us has shown that the Benghazi division of the anti-poultry diseases committee has conducted routine checks on the poultry farms in the area then took and thoroughly scrutinized blood samples taken from those farms. Later, on October 9th they sent them on to a special laboratory in the United Kingdom for another lab test. The result, which came by fax, confirmed that all the

(Continued on page 2)

Inside this Issue

(Continued from page 1)

samples are positive. This shows the prevalence of the bird flu virus in the eastern part of the country," the Libyan security minister, Nasr Al Mabrouk, said in a letter to the prime minister. A copy of the result was attached to the letter. Al Mabrouk complained bitterly against the agriculture ministry, which he accused of doing nothing to stave off the disease from entering the country, while chicken and live birds continue to be sold on the market with no concern.

According to Libya Today electronic newspaper, which got the document without disclosing the source, there is total chaos and panic over the way the Libyan authorities handled this dangerous dossier. As yet there is no confirmation either way. This does seem a little strange if the tests were conducted in the UK. One would have thought that the lab would have reported the outbreak if the tests were H5N1 positive.

Libya and Malawi may be clear of H5N1 but it does seem to be only a mater of time before it makes landfall there. In a region where most governments have only limited control over their populations, culling of infected flocks is unlikely to happen.

So far our efforts to contain H5N1 and prevent a spread to humans has been centred in Asia. Asia remains the high risk area but there is growing concern that it may be Africa that provides the breeding ground of our next influenza pandemic. **#**

The migratory bird path goes to Africa via Europe

Reinventing the Cycle

Robert Patton

The emergency management cycle, with the "four Rs" of reduction, readiness, response, and recovery has been around for about twenty five years and is well known to all of us working in the area of emergency management in New Zealand.

While a useful and well understood concept, the four R cycle seems inadequate for accurately representing the reality of emergency management as we understand it today. Emergency management development should be a continuum using, but not limited to iterative quality cycles.

Looking for a better way to represent the emergency management process, I began a conversation with a colleague, David Smith. Based on our discussion David went away and developed a diagram to represent the ideas that we had thrown around and I have continued to work on the diagram. Now is the time to "expose" our ideas for some peer review.

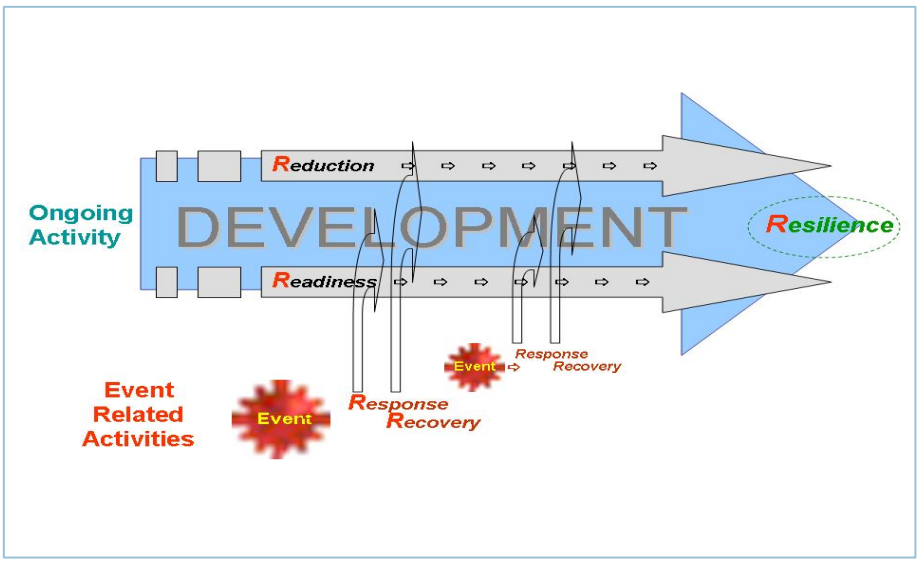
In the model we have developed, two components of the emergency management cycle, reduction and readiness, are shown as a continual ongoing activity, rather than as phases in a cyclic process. Behind reduction and readiness activities lies development.

This is to identify that all development activities, whether it be new development or redevelopment, should incorporate elements of reducing the likelihood and consequences of an emergency event and ensure that for those aspects that cannot be reduced, contingency planning is done.

The two emergency management cycle phases of response and recovery are event related and happen periodically. These intersect with the ongoing reduction and readiness activities. Lessons learned from the response to and recovery from these events is incorporated into reduction and readiness activities. Ideally, over a period of time, the need for response and recovery activities should be reduced if reduction and readiness activities are effective. All four phases of the emergency management cycle are essential to the process that leads to the ultimate goal of resilient communities. **#**

[Robert has asked for peer review and comment. Your comments will be welcomed and published. Ed]

Emergency Management Continuum



And away went the lake down the drain!

Mention Louisiana and Hurricane Katrina flashes into your mind; but flashback to Thursday, November 21, 1980 for a string of events that belong in Ripley's Believe it or Not. Initially, this day started out just like any other day (all strange stories seem to begin this way). The sun was just about to rise on the placid waters of Lake Peigneur. With a diameter of 3 Kilometres, just a few metres in depth, and a perimeter dotted with oil and gas wells, the Lake sounds rather dreary. Never the less, the Lake had its charm. In contrast to the wells was Jefferson Island, home to the beautiful Live Oak Gardens botanical park.

Here we find the Wilson Brothers Corporation, hired by Texaco, drilling a test hole at Well No. 20. The first 1,227 feet of drilling seemed to go very smoothly. But something started to go haywire at 1,228 feet.

The five-man night crew had run into some drilling problems during their shift. The first sign of trouble came about 4:30 a.m. when the drill pipe became stuck. It wouldn't turn and it couldn't be pulled up or down. About an hour later the drillers reported "popping" sounds coming from beneath the rig and decided to stay a while until the seven men day crew showed up at 6:00 a.m. At 6:30a.m., the drilling rig started to tilt slightly. The crew, suspecting that the drilling rig was collapsing under their feet radioed Texaco's district office in New Iberia about the problem. Both crews decided to abandon the platform and head for shore, just 200 to 300 yards away.

The water of Lake Peigneur slowly started to turn, eventually forming a giant whirlpool and a large crater developed in the bottom of the lake. It was like someone pulled the plug out of the bottom of a giant bathtub. The crater grew larger and larger (it would eventually reach sixty yards in diameter) and the water went down the hole faster and faster. The lake had been connected by the Delcambre Canal to the Gulf of Mexico, some twelve miles away and the ever-emptying lake caused the canal to lower by 3.5 feet and start flowing in reverse. A fifty foot waterfall (the highest ever to exist in the state) formed where the canal water emptied into the crater. Within the next three hours, the entire lake disappeared into the mine. The reverse flow in the canal continued for the next two days until the lake was once again filled with water, and the normal flow out into the canal recommenced. Approximately 30 shrimp boats in the canal, which was lined with seafood companies, were beached when the water level dropped. They were later refloated when the lake stabilized and the canal rose to its normal level."

The whirlpool easily sucked up the $5 million Texaco drilling platform, a second drilling rig that was nearby, a tugboat, eleven barges from the canal, a barge loading dock, seventy acres of Jefferson Island and its botanical gardens, parts of greenhouses, a house trailer, trucks, tractors, a parking lot, tons of mud, trees, and who knows what else. A natural gas fire broke out where the Texaco well was being drilled. Let's not forget the estimated 1.5 billion gallons of water that seemed to magically drain down the hole (does the Coriolis effect come into play here?). The threat of an environmental and economical catastrophe loomed.

This was not a swamp monster pulling out the bath plug. The cause was far simpler. Texaco was drilling on the edge of a salt dome. Unfortunately, at least in Louisiana, salt domes tend to be the home of salt mines. Yes, they drilled right into the third level of the Diamond Crystal Salt Mine that had been operating nearby. It's not that Texaco was unaware of the salt mine. They knew it was in the vicinity, but they did not know that it was exactly where they were drilling. Texaco had contacted the U. S. Army Corps of Engineers, which had, in turn, contacted Diamond Crystal. Unfortunately, there was a communication breakdown somewhere and as they say, "the rest is history."

Now freshwater in a salt mine is a big problem because when the water comes in contact with the salt, the salt dissolves. And, of course, in a salt mine, most of the sodium chloride (salt) is removed and pillars of salt are left in place to support the roof above (most of the tunnels were as wide as four lane highways with 25 metre high ceilings). Dissolve out these pillars and all the land on the surface will start to cave in so the little hole that Texaco drilled became bigger and bigger as the salt dissolved away.

There was some good news in this tale of woe. The mine had practiced its emergency evacuation plan just the week before. There were fifty work-

(Continued on page 4)

(Continued from page 3)

ers in the mine when the disaster occurred. Junius Gaddison, the mine's master electrician, was working 1,300 feet below ground when he heard an unusual noise. As he looked up, a muddy stream of water more than 2 feet deep was pushing toward him. That noise was the sound of fuel drums banging together as they were carried along by the stream.

Inside a typical salt mine

Gaddison shouted a warning to the shift foreman, Earl Dundas, who was also working at the 1,300-foot level, and began to flash the mine's lights in a warning pattern that the 51 men below ground knew to mean, "Get out of the mine, now." Workers at the 1,300-foot level phoned the man in charge of the elevator to lower it immediately, and also notified the foreman on the 1,500-foot level to evacuate the mine immediately. By the time the elevator cage was lowered, the nine workers on the 1,300-foot level were standing in ankle-deep water.

Wilfred Johnson, one of the men at that level, noticed about 6 inches of water beneath his tractor when the warning first flashed. A minute later, he said, the water was 2 feet high and rising evenly across the floor of a 100-foot-wide cavern. At the 1,500-foot level, Randy LaSalle, a maintenance foreman had to drive to several remote areas to pick up miners who had not seen the evacuation signal. He took them up to 1,300 feet, where they and others waited as the eight-man elevator crawled back and forth to the surface. It seemed like it took forever, but everyone was out of the mine by 9 a.m.

All the miners were alive but now faced another challenge - they were all suddenly unemployed. After two days of water pouring in, the mine was totally filled and all of the heavy duty equipment used to mine the salt was destroyed. Astonishingly, there was no loss of human life. One man, Leonce Viator, Jr., was actually out fishing with his nephew Timmy on his fourteen foot aluminium boat when the disaster struck. The water drained so quickly that the boat got stuck in the mud and they were able to walk away! Luck was certainly on their side. Getting to shore, Leonce watched as more barges were sucked into the maelstrom, followed by trees, docks, and other debris ripped from the shore. "It looked like a lot of toys in a draining bathtub," said one onlooker. "They'd whip around, bobbing up and down, and then bloop, they'd disappear."

J. Lyle Bayless Jr., who then owned Live Oak Gardens on Jefferson Island, watched all of this from his lakefront home. Sheriff's deputies ordered him off the property at noon, just before his house tilted, then slid into the waves. (The chimney sticks out of the lake beside the present Rip Van Winkle gardens, marking the spot where the house once stood. All told, more than 50 acres of garden would slide beneath the water.)

Federal mine safety experts from the Mine Safety and Health Administration found it impossible to determine who was to blame for the salt dome collapse (mainly because all of the evidence went down the drain). Of course, a disaster like this leads to endless lawsuits. Diamond Crystal sued Texaco. Texaco countersued Diamond Crystal. The Live Oak Gardens sued both Diamond Salt and Texaco. One woman sued Texaco and Wilson Brothers for $1.45 million for injuries (bruised ribs and an injured back) received while escaping from the salt mine. In the end, Texaco and Wilson Brothers agreed to pay $32 million to Diamond Crystal and $12.8 million to the Live Oak Gardens in out-of-court settlements.

Eventually, the land above the salt mine stabilized and life returned to normal. The Live Oak Gardens was rebuilt on its remaining land. The environmental catastrophe that was anticipated at the time of the accident never materialized. Nine of the barges eventually popped back up like corks (the drilling rigs and tug were never to be seen again). The salt mine was permanently closed, but most of the workers were able to find suitable employment. The torrent of water helped dredge Delcambre Canal so that it was two to four feet deeper. And of course, the three foot deep Lake Peigneur was now 1,300 feet deep and a salt water lake to boot. Marine species never seen before in the lake now swish around in its depths.

The moral of this story? Make sure you practice your disaster drills. You never know when you might need them. **#**

Unwelcome fellow travellers

Over the past month our media have been caught up in the debate over whether males should be allowed to sit next to unaccompanied children on aircraft. The policy of our airlines is to use woman passengers as surrogate parents. A policy that I as a male, strongly support.

While you are being whisked off to exotic destinations on vacation travels, pause and consider whether the airlines you use women passengers to sit next to and minister to fellow travellers who are feeling poorly. I have no doubt what the response would be from our women readers. Sitting in the 6p.m. from Wellington the other day I was startled by the sound of unmuffled sneezing coming from a number of rows back. (Our sneezing messages have a long way to go). As I and those around me cringed I wondered about the real risk of catching a respiratory infection while travelling by air.

Anecdotally, many people complain of respiratory symptoms following air travel. However, studies of ventilation systems and patient outcomes indicate the spread of pathogens during flight occurs rarely. But in the present environment of pandemic influenza preparedness it is timely to review those studies. Leder K., and Newman D., did just that. Their study, ***Respiratory infections during air travel,*** is reported in the Internal Medicine Journal Vol 35, Issue 1, pp 50 – 55.

They claim that up to half the travelling population experience a health problem related to overseas travel, and approximately 5% require medical attention. A recent review of admissions to an Australian tertiary care hospital following travel showed respiratory tract infections to be the second commonest cause of illness after gastrointestinal infections and the second most common cause of fever behind malaria. They conclude, not unreasonably on that evidence, that travel on commercial aircraft might be a high-risk environment for transmission of infectious diseases. Confined space, limited ventilation, prolonged exposure times and recirculating air, all common to air travel, are demonstrated risk factors for the transmission of upper respiratory tract infections in other settings and create the potential for the spread of respiratory pathogens during flight.

The debate regarding infectious disease transmission and air travel has centred on whether cabin ventilation systems, particularly those that involve the now-standard 50% recirculated air, contribute to the transmission of airborne diseases.

The two main transmission routes for respiratory infections are by droplet spread and by the airborne route. Droplet spread involves relatively large droplets containing organisms that settle out of the air quickly. It requires direct contact of droplets produced by coughing, sneezing or talking onto the mucous membranes of recipients for transmission, necessitating contact at close range (usually within 1 m). The common cold is an example of an infection spread predominantly by this route. Airborne transmission involves dissemination of tiny suspensions of microbial particles (droplet nuclei) that can remain suspended in the air for prolonged periods. Droplet nuclei are usually 1-10 µm in size, can disperse widely and rapidly in closed environments with a recirculation ventilation system and can easily be drawn into the bronchioles of recipients' respiratory tracts. Transmission by this route can lead to infections in a large number of people. Tuberculosis (TB) and smallpox can spread in this way. Some infections, such as influenza and measles, can be spread by both routes, but are predominantly spread by the indirect airborne route.

Anecdotally, many people complain of respiratory symptoms following air travel that could be from acquisition of infection, but could alternatively be associated with other factors inherent in flight, such as lowered barometric pressure, hypoxia and low humidity. Breathing low-humidity air for prolonged periods, for example, can result in dry mucous membranes of the nose and throat, which can lead to respiratory tract irritation.

Most passenger-carrying aircraft have pressurized cabins that allow the cabin to be ventilated and maintained at a desired cabin air pressure, as well as enabling control of the temperature, relative humidity and air flow volume. Cabin air is derived largely from cabin pressurization systems, which generally result in a cabin altitude of 4000-8000 feet at an aircraft altitude of 30 000-40 000 feet.

> The outside air drawn in contains few microbiological agents. It is dry, sterile and free of dust

Air at this altitude contains very few microbiological agents. It enters the engine of the aircraft and is compressed to very high pressures (approximately 2750 kPa) and heated to very high temperatures (more than 800°C). Any residual microbiological agents in the ambient air will be destroyed at such high temperatures. A

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proportion of this hot compressed air is used for cabin pressurization purposes. It is sent to the conditioning system and is passed through a series of heat exchangers and refrigeration systems.

The air released is dry (relative humidity of approximately 5%), sterile and free of dust. It is also much cooler and at a lower pressure. The conditioned air then enters a mixing manifold, where it is combined with an equal quantity of filtered recirculated air. The typical mix of conditioned air and recirculated air in a modern jet transport aircraft is 50:50. Older commercial aircraft were generally ventilated with 100% fresh air. However, the introduction of air recirculation systems arose from the requirement during the 1980s to reduce aircraft operating costs.

Use of a recirculation system means filtration of the air is required. The recirculation system draws air from the aircraft cabin by a series of fans, and this air is passed through high-efficiency particulate air (HEPA)-type filters. These filters are similar to those used in hospital operating theatres and sterile wards, and are several orders of magnitude more efficient at removing particulate material than filters used in buildings.

> the use of HEPA-type filters in aircraft cabin pressurization systems means that 99.9% of bacteria and viruses produced by aircraft passengers are removed from cabin air. Because both air from outside the aircraft and recirculated air are free of microbial agents, the cabin air is essentially sterile.

HEPA-type filters are rated using 0.3-µm sized particles. Most bacteria have diameters of approximately 1 µm, so will be removed. Viruses are usually 0.01-0.10 µm in size, but generally form clumps or attach to larger dust particles so they are also usually trapped in the filters. Thus, the use of HEPA-type filters in aircraft cabin pressurization systems means that 99.9% of bacteria and viruses produced by aircraft passengers are removed from cabin air. Because both air from outside the aircraft and recirculated air are free of microbial agents, the cabin air is essentially sterile. It has a relative humidity of 10-20% and a temperature of 18-30°C.

Relative humidity can influence microorganism numbers: a low relative humidity will generally be beneficial for viral growth, as relative humidity and survival are inversely related for viruses, but bacteria will not thrive in a low relative humidity environment. Air then enters the distribution pipework for delivery to the cabin. Cabin air is taken from below the floor of the aircraft to the overhead cabin ventilation system, which runs the length of the cabin. The ventilation system is usually designed so that air entering the cabin at a given seat row is exhausted at the same seat row. This limits the amount of air flowing in the fore and aft directions, which also helps minimize infection risk.

With modern cabin pressurization systems, the cabin air is completely exchanged at least 20 times per hour, compared with 12 air exchanges per hour in a typical office building and 5 exchanges per hour in most homes. This high air exchange rate further reduces the likelihood of transmission of infections.

Now that you are starting to feel a little more comfortable we should introduce the people sitting close to you. Besides the usual lack of social graces and unfamiliarity with bathrooms that some of our fellow passengers sometimes exhibit, passengers at most risk from catching a "lurgy" are those sitting in close proximity to the infected passenger. The relative infectiousness of the ill passenger will thus be an important factor in the risk of transmission. On a long flight, getting a seat near a lavatory must substantially increase your risk of drawing an infection prize. However, on the up side, a recent study found bacterial and fungal counts in aircraft to be a log concentration below that found on city buses, in shopping malls and in the outside air.

Influenza

The survival and transmission of influenza virus in infectious droplets is facilitated by the low humidity of cabin air. Aircrew have been found to have a high rate of influenza-like illnesses; one study showed a 33% attack rate over a 7-month period in unvaccinated individuals. In addition, outbreaks of influenza transmission during travel have been described. In one well documented but now somewhat historic 1979 case an Alaskan passenger jet suffered engine failure during take-off. The aborted departure resulted in a 3 hour ground delay. All 54 passengers remained on board the aircraft during this delay, throughout which time the cabin ventilation system was turned off. The apparent index case developed symptoms while on board. Within 72 hours, 72% of the passengers and 40% of the crew had contracted influenza. Largely as a result of this outbreak, it is now recommended that, in the case of ground delays of more than 30 minutes, adequate aircraft ventilation must be supplied.

A recent report described another possible influenza outbreak related to air travel. A person with an influenza-like illness boarded a 75-seat passenger jet aircraft for a flight lasting just under 3.5 hours. Over the next 3-4 days, 20 other passengers developed similar illnesses. Most of those affected were sitting close to him, the exceptions being someone who had walked up and down the aisles collecting money for a raffle, and the index case's supervisor who assessed him prior to boarding the flight. Air had been circulated and filtered on the aircraft in a routine manner. It was suspected that transmission occurred via droplets to those sitting near him, as he coughed and sneezed throughout the flight.

Thus, the overall risk of TB transmission during flight is low, but it increases with proximity and duration of exposure to the source patient. No definitive statistics linking active TB to airline travel exist, but the overall public health importance is minor. The World Health Organization (WHO) has recently published guidelines for the prevention and control of TB during air travel. These guidelines recommend tracing and informing passengers and crew members if they have been on a flight lasting more than 8 h with a highly infectious person, if they have been sitting close to the infected individual and if less than 3 months has elapsed between the flight and case notification to health authorities. They

(Continued on page 7)

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also recommend maximum efficiency air filters, keeping ground delays to a minimum and denying boarding to individuals with active TB.

Severe acute respiratory syndrome

SARS and travel are intricately linked, as it was an American businessman travelling from China via Hong Kong who exported the disease to Vietnam. The SARS virus is spread predominantly by contact with respiratory droplets from an index case or by direct contact with contaminated hands or objects, although airborne transmission also occurs. The speed with which SARS spread around the world was no doubt facilitated by air travel, but this does not imply that transmission occurred on board aircraft. However, presumed in-flight transmission of SARS has been reported. A doctor who had had contact with a SARS patient in Singapore flew from New York to Germany while feeling unwell. His wife and mother-in-law, who were incubating SARS, were also on the flight. The airline was alerted to the possibility of SARS and the doctor and his family were isolated at the back of the plane. A previously well flight attendant had brief contact with them while serving and picking up their food trays. Four days later, the flight attendant developed a fever and was subsequently diagnosed with probable SARS. No other crew members or unrelated passengers contracted SARS.

Passenger-to-passenger transmission of SARS has also been indicated. In a recent study, passengers and crew members were interviewed at least 10 days after travel if they had been on one of three flights lasting 1.5-3.0 hours that had transported a patient or patients with SARS. One of the flights carrying one symptomatic patient with SARS and 119 others was associated with potential transmission of SARS to 22 people. Illness was related to the physical proximity to the index case, with eight of 23 people seated in the three rows in front of the index patient developing illness compared with 10 of 88 people seated elsewhere (relative risk: 3.1). In contrast, another flight carrying four symptomatic patients with SARS and 242 others resulted in transmission to at most one other person, and a third flight carrying a person with presymptomatic SARS resulted in no documented spread of infection to the 314 others on the flight. This suggests that the stage of the illness and size of aircraft might influence transmission. In addition, poorly characterized host factors might predispose certain patients to transmitting the virus to large numbers of people, making them so-called 'super-spreaders' of infection. Another recent review examined data from flights to Singapore with patients with SARS on board in order to assess the risk of in-flight transmission. Transmission occurred in only one of the three flights with symptomatic patients with SARS on board, and the incidence was estimated to be one in 156 passengers. Thus, the authors concluded that the risk of transmission of SARS appears to be very low, although they also noted that it might be increased with super-spreaders on board .

The passenger loading you only see in travel brochures

Subsequent analysis of approximately 35 flights in which a symptomatic probable SARS case was among the passengers or crew found that cases on four of these flights were associated with possible transmission on board. WHO acknowledged that air travellers 'within two rows of an infected person could be in danger', although the above study suggests the risk extends to (at least) three rows in front of the index case. The greater concentration of illness in people sitting in front of the index case than behind suggests a role of coughing in transmission, possibly with a combination of airborne and droplet spread.

The initiation of screening procedures to detect people with fever prior to boarding during the SARS outbreak was appropriate and presumably further reduced the risk of in-flight transmission. Additional precautions recommended by WHO for patients who became febrile during flight included isolation of the case (as best as possible) from other passengers, initiation of protective masks to be worn by crew and strict adherence to personal hygiene and infection control measures for those caring for the case. Systematic studies to determine the exact risk of in-flight transmission are almost impossible to perform. Although the media dramatized cases of SARS transmission on airplanes, the fact that SARS is associated predominantly with droplet spread makes the risk of mass infection on aircraft unlikely. Nevertheless, the potential for airborne transmission and super-spreaders means the risk cannot be altogether discounted.

Other respiratory pathogens

Other pathogens with the potential for respiratory transmission during air travel are the common cold, measles, smallpox and meningococcal infection. Two published reports have suggested that measles has been transmitted on board international and domestic flights. Only passengers seated within a few rows from the ill individuals were infected.

Smallpox has now been eradicated, but transmission of smallpox on aircraft has been described. Transmission of meningococcal infection (spread by direct contact with respiratory secretions) has been studied during air travel, but no cases of secondary disease among contacts have been reported. Nevertheless, because of the perceived potential risk, passengers seated next to a patient with meningococcal infection for flights lasting 8 hour or more are considered to be at high risk and antimicrobial prophylaxis is recommended. **#**

HEMNZ Bulletin

The HEMNZ Bulletin is published monthly by the Risk Management Unit of St John Northern Region for all those interested in emergency management in health care settings

Articles and comment on emergency management issues are welcomed

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Check out our Web site at www.hemnz.org.nz

Up coming Events

14 - 15 February 2006
Emergency Management Conference
Duxton Hotel, Wellington
Cost: $2195 + GST
More information from;
www.conferenz.co.nz

23 - 24 March 2006
HEMNZ2006
Novotel Hotel, Ellerslie, Auckland
Brochure available in December from; www.hemnz.org.nz

Editor's soapbox

The most important thing that we have going for us in emergency management is the collegial support, encouragement and sharing between practitioners. The synergies we create as a group take as far beyond what we could achieve as individuals.

I thank all those who have helped and supported me in the past year. I trust I have been able to reciprocate to your satisfaction. Many of you will be able to enjoy some time in the sun away from the pressure of work. All of us in the HEMNZ team hope that you receive all the rewards that you truly deserve and you come back to work in the New Year refreshed and excited by the challenges ahead.

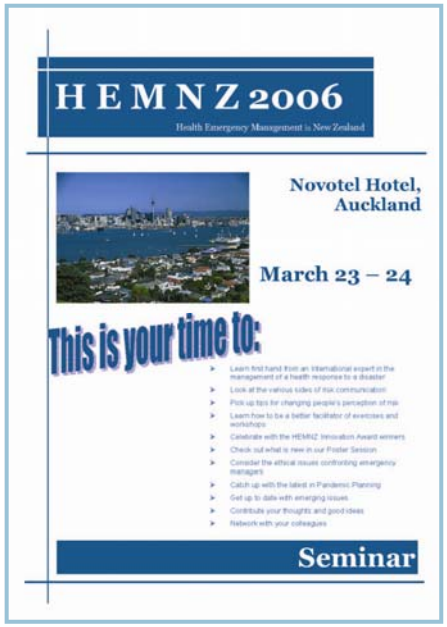
A pandemic planning workshop held at the Westpac Stadium last week covered a lot of ground, showed we have come a long way and clearly indicated we still have a long way to go before we can be satisfied that we are ready for a pandemic in what ever shape it comes.

The Ministry is to be applauded for promoting the workshop. The Stadium has been the scene of many gladiatorial contests and some people were no doubt braced for another. It did not happen because Ministry people were prepared to admit that they did not have all the answers and sector representatives were prepared to offer support to get the job done. Working together is the only way we are going to reach our goals.

For those who were unable to make it on the day, the presentations and a transcript of the question and answer sessions will be posted on the Ministry website later this week. Perhaps not holiday reading but perhaps an informative trawl in some spare moments you may get in early January.

Next week marks the anniversary of the Asian Tsunami (it all now seems so long ago). Perchance, the government has issued a report on the tsunami history and risk profile in this country. It is available for download on the Ministry of Civil Defence website.

Bruce Parkes



Mark your diaries now and set aside two days in March to attend HEMNZ2006. You have worked hard these past few months driven by an urgency to get your pandemic plans in place. Now is the time to catch your breath and catch up with what is new before charging off into 2006 activity.

We have assembled an exciting line up of speakers bringing new ideas and experiences. Keynote speaker Professor Skip Burkle brings a life-time of experience working in combat and disaster zones.

Don't forget the HEMNZ Innovation Awards and Poster Display. Two opportunities to showcase the work you have been doing.

Full information and registration forms for all HEMNZ activities are available on our website or by e-mailing bruce.parkes@stjohn.org.nz