

Treating Wicked Risk

Using the word “wicked” is a sure way to grab listener’s attention and when Dr Erica Seville from the University of Canterbury did just that in her session at the Risk Society conference we were all at full alert. Erica was advancing the concept of “wicked risk” and how to treat it. Wicked risks are those shared risks where many share the problem and must share in the solution because the parameters are so wide that no one organisation or nation can successfully treat them on their own.

Erica used the international response to global warming as an example of “wicked risk.” All countries are at risk but some have a greater sense of urgency than others. There are multiple contributors to global warming so the blame or responsibility can not be sheeted home to one party and the economic penalties of acting first provide a major disincentive for taking action. There is debate over the science and efficacy of proposed ways to reduce global warming and we all have peered through the fog of perception, politics and personalities to form our own opinions.

Looking a little more locally, as residents of the “shaky isles” we are used to thinking about earthquakes. Our exposure to earthquake prone buildings is a community issue that affects everyone but is no one’s problem. There is an uneven distribution of risk, benefit and control with no visible deadlines for action to be taken and communicating the complex technological issues creates an ongoing challenge.

As you read this does your mind swing to influenza pandemic? To me there seems to be the odd point of similarity and the challenges we face are the same. There is a common exposure to the risk but the risk will look different from different perspectives and no one country, organisation or individual working unilaterally can effectively manage the risk on their own. While we in New Zealand look to the WHO for a lead, the ownership and responsibility for the risk of a pandemic is not well defined. There are so many stakeholders with different motivations and differing capacities to take any effective risk reduction action.

As always defining the problem is the easy bit. Coming up with a solution is a little harder. Erica’s answer is shared risk management and she offers a template for going about it. The starting point is to engage with the issue through establishing a shared context so people recognise the risk as a real one and one that affects them. This requires all parties to think about and discuss the issue by considering the risk and implications from their own perspectives. From this should come a sense of ownership of the risk with a baseline understanding of the risk and a collective awareness of who the stakeholders are, who benefits, who pays and who has the ability to influence the risk. Erica believes that ownership of the risk will lead to an aligning of different stakeholder motivations.

All this will require positive interaction and ongoing dialogue. To keep all stakeholders at the table there has to be trust in the process and empowerment and respect for others at the table. Something which has not always been evident as we have travelled along the highways and byways of our pandemic planning journey.

Inside this Issue

Treating Wicked Risk	1
Disaster appeals do more harm than good says MSF	2
Participation inequality: or Lurkers, Workers and Shirkers	3
Forget Tamiflu: Lock up your kids	5
Japan holds huge quake drill	7
End disaster exceptionalism say critics	8
Upcoming Events	9
Editor’s Soapbox	9



(Continued from page 1)

Leadership is the next step in Erica's template. One or more of the stakeholders needs to drive and manage the process. In New Zealand we seem to have had better leadership than many other jurisdictions. Being the lead agency is not a familiar place for health to find itself but supported by other agencies the right people have stepped or been prodded forward to foster engagement, ownership and positive interactions. For pandemic influenza we need to be prepared to be the first to act and while thinking globally, act locally.

Painting a shared vision of what a solution might look like and a high level road map for getting there are the first steps in seeking solutions followed by breaking the problem down into manageable chunks – or put more colloquially, eating the elephant with many mice size bites. It seems we spend half our lives in committee talking about problems but talking is not enough.

We need to stay focussed and generate ideas about both possible and effective solutions. One of the joys of our pandemic planning has been observing the shift from pie in the sky solutions to those which are both practical and effective.

There is just one more box in Erica's model; make sure your progress is visible; have specified time frames for action with clearly defined roles and responsibilities; set tangible targets and success factors; follow up and monitor progress; and most importantly showcase your success. At last it has come out – the C word. Communication must be implicit throughout the process, not just as an afterthought at the end.

Listening to Erica's presentation is reassuring to line her model up against our pandemic planning journey and tick the boxes all the way through. Not quite completion ticks but ticks to indicate that we have been on the right path. Exercise Makgill in November



Erica Seville

will give us a chance to monitor our progress at both national and local level. #

Disaster appeals do more harm than good, says MSF.

Massive public appeals by aid agencies in the wake of disasters are wrong and should stop, Gorik Ooms, head of Medicines Sans Frontieres (MSF) Belgium said during a debate at the London School of Economics. "Such appeals did more harm than good and were based on a "convenient illusion" of benefit shared by nongovernmental organisations and the donating public."

Emergency donations are too late to be of use, and swiftly turn to poison as they encourage incompetent interventions by NGOs desperate to dispose of earmarked cash, he said. "If we take this money we end up doing things we shouldn't do. Many NGOs don't have real disaster relief capacity but they go for an appeal because it is a source of funding. NGOs that have real capacity are crowded out by those that don't."

Ooms urged NGOs to have the bravery to debate whether they should appeal for vast sums after emotive disasters. His call coincides with the first anniversary of the Pakistan earthquake, after which the cost of relief supplies soared, making emergency donations

worth much less than they would have been during "peacetime", according to Ooms. "The real relief work during the first week of a disaster is already prepared, pre-planned and pre-paid," he said. "You buy tents months or years before you need them."

Just a week after the Indian Ocean tsunami in December 2004, MSF took the unprecedented step of announcing that it had received too many donations and would divert them to other emergencies. "After the tsunami, the dead people remained dead," Ooms said. "The survivors didn't need that much real relief - for the first 48 hours, yes they did, but if you couldn't be there then, after that you were not very useful."

As for long-term reconstruction: "That was beyond the capacity of most NGOs. I'm sure this disaster was not for MSF and I don't think it was for many NGOs." MSF repeated its approach after the Pakistan earthquake, stipulating that donations would be siphoned into its general emergency fund. But Ooms, who was taking part in a debate titled "NGOs: a disaster for

disasters", said the level of donations seemed to fall as a result.

Ooms called for "education" of the public into giving regularly, out of emergency time instead of emotionally at the time of crisis. But he admitted that this call goes against a powerful public sentiment. A common response to MSF's tsunami announcement, he said, was: "You have ruined our way of showing solidarity with these people. Shut up now and tell us one month later that you are going to spend the money elsewhere."

Sir Nicholas Young, chief executive of the British Red Cross, agreed that waves of disaster funding could cause problems for NGOs. But he said aid agencies were the only bodies the public trusted with its money at the time of disasters. "We raised 100 million pounds (\$188 million) from the UK people for the tsunami, and 20 million pounds (\$38 million) for the Pakistan earthquake from generous people who would have trusted no government to spend that money wisely," he told the meeting. #

Participation inequality: or Lurkers, workers and shirkers

Why does everyone leave it to me? That is a question we have all asked from time to time as we gazed up at the avalanche of e-mails flooding into our in box with an urgent sticker attached. Whenever I get time to think about it I comfort myself by intoning Pareto's theorem about 20% of the people doing 89% of the work but a recent posting by website guru Jacob Neilson suggests that I may have under-estimated the reality of the e-world.

Neilson postulates that in most online communities, 90% of users are lurkers who never contribute, 9% of users contribute a little (let's call them the shirkers), and 1% of users account for almost all the action (the brave workers).

All large-scale, multi-user communities and online social networks that rely on users to contribute content or build services share one property: most users don't participate very much. Often, they simply lurk in the background. Does this sound like some of the committees you are on?

In contrast, a tiny minority of users usually accounts for a disproportionately large amount of the content and other system activity. This phenomenon of participation inequality was first studied in the early '90s when research found that user participation often more or less follows a 90-9-1 rule:

90% of users are lurkers (i.e., read or observe, but don't contribute).

9% of users contribute from time to time, but other priorities dominate their time.

1% of users participate a lot and account for most contributions: it can seem as if they don't have lives because they often post just minutes after whatever event they're commenting on occurs.

When you plot the amount of activity for each user, the result is a Zipf curve, which shows as a straight line in a log-log diagram. Those with a non mathe-

matical bent might like to skip the sidebar to the right.

However, it is clear from the table that Zipf curves have a tendency to hug the axes of the diagram when plotted on linear scales. This is why we usually plot them on double-logarithmic diagrams, even though most people are not used to interpret such diagrams. A simple description of data that follow a Zipf distribution is that they have a few elements that score very high (the left tail in the diagrams), a medium number of elements with middle-of-the-road scores (the middle part of the diagram) and a huge number of elements that score very low (the right tail in the diagram)

Zipf distributions have been shown to characterize use of words in a natural language (like English) and the popularity of library books.

So typically a language has a few words ("the", "and", etc.) that are used extremely often, and a library has a few books that everybody wants to borrow (current bestsellers);

A language has quite a lot of words ("dog", "house", etc.) that are used relatively much, and a library has a good number of books that many people want to borrow (crime novels and such)

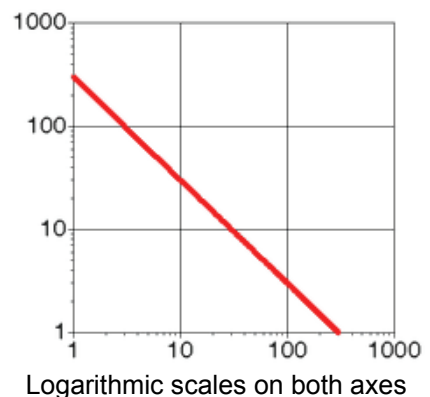
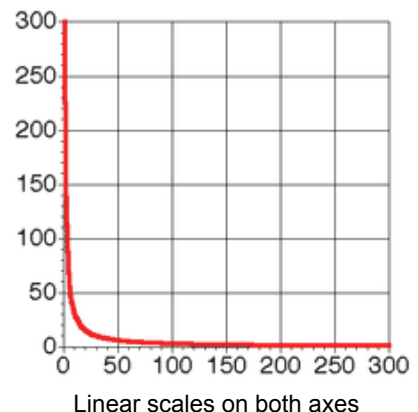
A language has an abundance of words ("Zipf", "double-logarithmic", etc.) that are almost never used, and a library has piles and piles of books that are only checked out every few years (reference manuals for Apple II word processors, etc.)

Early Inequality Research

In an early Usenet study, a randomly selected posting was equally likely to come from one of the 580,000 low-frequency contributors or one of the 19,000 high-frequency contributors. Obviously, if you want to assess the "feelings of the community" it's highly unfair if one subgroup's 19,000 members have the same representation as another subgroup's 580,000 members.

About Zipf curves

Zipf curves follow a straight line when plotted on a double-logarithmic diagram. The figure shows a simple dataset with 300 elements that follow a Zipf distribution. Note how the line connecting the data points is straight on the lower diagram (with logarithmic scales on both axes). Most of the plots you are used to see have linear scales, so for sake of comparison, the upper diagram in the figure has the same data points plotted on linear scales.



The same data plotted on linear and logarithmic scales. Both plots show a Zipf distribution with 300 data points

(Continued from page 3)

More importantly, such inequities would give you a biased understanding of the community, because many differences almost certainly exist between people who post a lot and those who post a little. And you would never hear from the silent majority of lurkers. And surely this is a risk we always face when we enter into mandatory community/stakeholder consultation. Which does not mean one should not do it – just be cautious about the conclusions you draw.

Inequality on the Web

Participation inequality exists in many places on the Web. A quick glance at Amazon.com, for example, showed that the site had sold thousands of copies of a book that had only 12 reviews, meaning that less than 1% of customers contribute reviews.

Furthermore, 167,113 of Amazon's book reviews were contributed by just a few "top-100" reviewers; the most prolific reviewer had written 12,423 reviews. How anybody can write that many reviews -- let alone read that many books is a mystery.

Downsides of Participation Inequality

Participation inequality is not necessarily unfair because "some users are more equal than others" to misquote *Animal Farm*. If lurkers want to contribute, they are usually allowed to do so.

The problem is that the overall system is not representative of Web users. On any given user-participation site, you almost always hear from the same 1%

of users, who almost certainly differ from the 90% you never hear from.

How to Overcome Participation Inequality

This is the bit you read on to find and I am sorry, the answer is you can't.

The first step to dealing with participation inequality is to recognize that it will always be with us. It's existed in every online community and multi-user service that has ever been studied.

Your only real choice here is in how you shape the inequality curve's angle. Are you going to have the "usual" 90-9-1 distribution, or the more radical 99-1-0.1 distribution common in some social websites? Can you achieve a more equitable distribution of, say, 80-16-4? (That is, only 80% lurkers, with 16% contributing some and 4% contributing the most.) Although participation will always be somewhat unequal, there are ways to better equalize it, including:

- Making it easier to contribute. As some do, take your road show to your audience. The lower the effort to attend, the more people will jump through the hoop.
- Make participation a side effect. Even better, let users participate with zero effort by making their contributions a side effect of something else they're doing. For example, Amazon's "people who bought this book, bought these other books" recommendations are a side effect of people buying books. You don't have to do anything special to have your book preferences entered into the system.

- Edit, don't create. Let users build their contributions by modifying existing templates rather than creating complete entities from scratch. Editing a template is more enticing and has a gentler learning curve than facing the horror of a blank page.
- Reward -- but don't over-reward -- participants. Rewarding people for contributing will help motivate users who have lives outside your activity, and thus will broaden your participant base. Make sure there are refreshments at appropriate times; but don't prepare a banquet or you'll simply encourage them to come for the food and not the discussion.
- Promote quality contributors. If you display all contributions equally, then people who contribute only when they have something important to say will be drowned out by the torrent of material from the hyperactive 1%. Instead, give extra prominence to good contributions and to contributions from people who've proven their value.

Finally, it is important to recognise that we are all lurkers and shirkers sometimes. There are just not enough hours in the day for us to contribute fully to all those activities we are involved with. When we are we should be open about it and acknowledge those who are putting in the effort. And for those who just have to be the workers, take silent satisfaction from knowing that you are the one percent who will save the world. #

Rules for an easy life

1. Don't be irreplaceable. If you can't be replaced, you can't be promoted.
2. Always remember that you're unique, just like everyone else
3. Never test the depth of the water with both feet
4. Before you criticize someone, you should walk a mile in their shoes. That way, when you criticize them, you're a mile away and you have their shoes.
5. If at first you don't succeed, skydiving is not for you.
6. If you lend someone \$20 and never see that person again, it was probably worth it.
7. If you tell the truth, you don't have to remember anything.
8. There are two theories to arguing with women. Neither one works.
9. Generally speaking, you aren't learning much when your lips are moving.
10. Never, under any circumstances, take a sleeping pill and a laxative on the same night

Forget Tamiflu: Lock up your kids

At the start of an influenza pandemic, an effective vaccine will not be available and it is unlikely sufficient antiviral drugs will be available for the general population so communities will have to rely on traditional public health measures to protect themselves and slow the transmission of the influenza. Closing borders, restricting travel, community level quarantine, and social distancing are all strategies we have been considering.

While we have seen closing schools and public entertainment venues as a given we have not spent a lot of time understanding how influenza spreads from person to person through social contact networks within a community. But help is at hand; some of the hard work has been done for us. A paper *Targeted Social Distancing Design for Pandemic Influenza*, by Robert J. Glass, Laura M. Glass, Walter E. Beyeler, and H. Jason Min in the November issue of *Emerging Infectious Diseases* describes how social contact network-focused mitigation can be designed.

The authors describe how they used a network-based simulation model for the spread of influenza to a community of 10,000 persons connected within an overlapping, stylized, social network representative of a small US town. First they studied the effect of the unmitigated transmission of influenza within the community, then changed the frequency of contact within targeted groups and built combinations of strategies that could contain the epidemic. They found that the infectivity of the strain and underlying structure of the infectious contact network influences the design of social distancing strategies. The good news is that they found that in the absence of vaccine and antiviral drugs, reduced social contact measures can be design for specific communities to defend against highly virulent influenza.

The Model

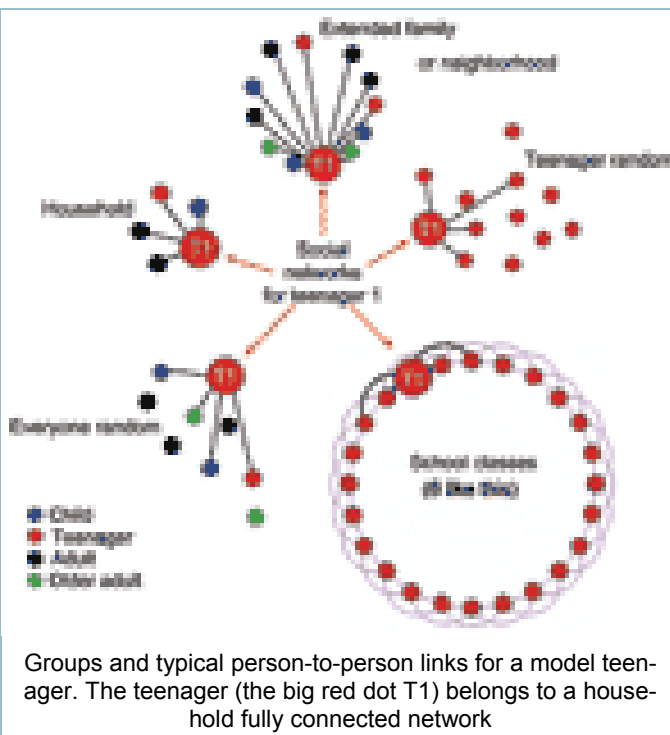
The design process first created an explicit social contact network in which persons are linked to others in a community. Spread of influenza within the network is then simulated by imposing behavioural rules for persons, their links, and the disease. These

rules are modified to implement targeted mitigation strategies within the community, the effectiveness of which are then evaluated.

A network is created by specifying groups of given sizes (or range of sizes) within which persons of specified ages interact (e.g., school classes, households, clubs). The average number of links per person within the group is also specified because cliques form or are imposed (e.g., seating in a classroom). This number is used to construct a within-group network that can take various forms. Fully connected, random, or ring networks for each group were used. Random networks are formed by randomly choosing 2 persons within the group and linking them. This process is repeated until the number of links within the group yields the specified average (each person will have a different number of links). The ring is formed by first placing persons next to neighbours and linking them to form a complete circle. Additional links are then made to next nearest neighbours symmetrically around the ring. Finally, links within a group are given an average frequency of contact per day. With this approach, a network can be built to exhibit the clustered yet small-world characteristics and overlapping quality of a structured community.

The network used represented a stylised small US town and took advantage of the diverse backgrounds of the authors (1 of whom is a teenager). Of course a “stylised US small town may or may not fit a particular town in the US, New Zealand, or elsewhere; but it provides a good starting point.

The population of 10,000 conformed to the 2000 US Census and consisted



of children (<11 years of age, 17.7%), teenagers (12–18 years of age, 11.3%), adults (19–64 years of age, 58.5%), and older adults (≥ 65 years of age, 12.5%). All persons belonged to multiple groups, each associated with a sub-network of links that reflected their lives within the community. Households were composed of families (adults with children or teenagers), adults, or older adults. All persons within each household were linked to each other with mean link contact frequencies of 6/day. Every person also belonged to 1 multi-age extended family (or neighbourhood) group (mean membership 12.5, mean link contact frequency 1/day).

All children and teenagers attended preschool or school; children attended 1 class/day, while teenagers attended 6 (classes of 20 to 35 children or teenagers). All adults went to work daily, where they interacted with other adults (work group size 10–50), and all older adults attended gatherings with other older adults (gathering size 5–20). For links within school classes, work, and gatherings of older adults, they assumed the simplest sub-network that imposes local clustering: a ring lattice in which a person is linked to 2

(Continued on page 6)

(Continued from page 5)

(for children or teenager classes and gatherings of older adults) or 3 (adult work) neighbouring persons on each side along the ring. Mean link contact frequencies for children in a class are 6/day. Teenager classes, adult work, and gatherings of older adults have mean link contact frequencies of 1/day.

To represent additional within-age class interactions, such as extracurricular activities, playgrounds, bowling leagues, or friends, persons are randomly linked to an average of 3 other persons of the same age class (mean link contact frequency 1/day). Finally, to emulate a somewhat patterned set of random contacts from commercial transactions and other ventures into public spaces, we impose a random overall network across all age classes with a mean of 25 links/person to yield 1 contact/person/day (mean link contact frequency 0.04/day).

The authors propose that high infectiousness and a high number of contacts, many like-to-like, create a zone of high infectious contact centred on children and teenagers within the community's social network. They state that targeting this zone can protect the community at large.

Targeting children and teenagers provides best protection for the community at large.

First, they examined closing schools. Although contacts in classes are removed, those in all other groups may increase because children and teenagers spend more time at home, in neighbourhoods, with friends, and in public spaces. They assume that school closure at a minimum doubles household contacts. Closing schools with 90% compliance the day after 10 symptomatic cases reduces the attack rate to 22%. However, assuming that school closure doubles all link contact frequencies for children or teenagers within their non-school groups, attack rates are increased by 18%.

Requiring all children and teenagers to stay at home after school closure for the duration of the pandemic reduces contact frequencies by 90% for all groups that contain only children or teenagers (classes and their random networks) and, as before, doubles con-

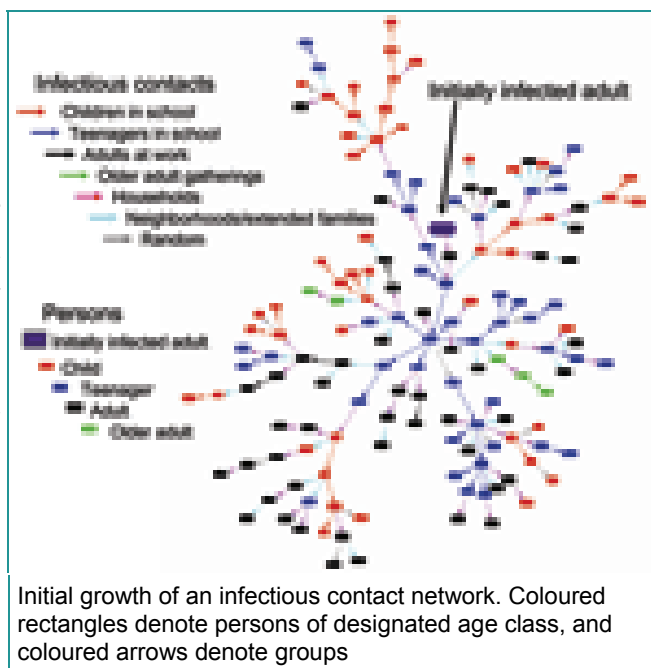
tacts for children or teenagers in households. In the extended family or neighbourhood and the random overall networks, child or teenager contact frequencies are also reduced by 90%. Thus, although children and teenagers are restricted to the home, adults and older adults go about their day-to-day routines, except that they avoid children or teenagers who are not household members. Imposing this strategy the day after 10 symptomatic cases reduces attack rates by 93%. Waiting until 80 symptomatic cases reduces attack rates by 73%

The trade-off between effectiveness and public compliance was also evaluated. At 50% compliance, attack rates can be reduced by 68%. Reduction in compliance also increases the time scales for the epidemic. Epidemics lengthen above the base case and reach a factor of ≈ 1.8 at 40% compliance

Other social distancing strategies can be considered. Because children outnumber teenagers and children are more infective and susceptible, what happens if only children are distanced, while teenagers attend school and follow their usual routines? At 90% compliance, this strategy reduces the attack rates by 47%. What if all sick persons remain at home when symptomatic? At 90% compliance this strategy reduces attack rates by 20%.

Results for this stylised small town study suggest that targeted social distancing strategies can be designed to effectively mitigate the local progression of pandemic influenza without the use of vaccine or antiviral drugs. For an infectivity similar to that of the 1957–58 Asian influenza pandemic, targeting children and teenagers, by not only closing schools but also by keeping these age classes at home, was effective. However, given uncertainty in the infectivity of the influenza strain and infectivity/susceptibility of the young versus adults, planning to implement strategies that also target adults and

the work environment is prudent. To mitigate a strain with infectivity similar to that of the 1918–19 Spanish influenza pandemic, simulations suggest that



all young and adults must be targeted regardless of the likely enhanced transmission by the young.

The authors accept that implementation of social distancing strategies is challenging. They must be imposed for the duration of the local epidemic and possibly until a strain-specific vaccine is developed and distributed. If compliance with the strategy is high over this period, an epidemic within a community can be averted. However, if neighbouring communities do not also use these interventions, infected neighbours will continue to introduce influenza and prolong the local epidemic, albeit at a depressed level more easily accommodated by healthcare systems.

Measuring contact networks within communities for the spread of infectious diseases requires focused research that combines sociology, public health, and epidemiology. Such networks will likely differ across cultures, between urban and rural communities, and with community size. With the aid of detailed demographic data, expert elicitation of social scientists and community members, behavioural surveys, and possibly experiments, a network could be constructed for any community of interest. Is anyone up the challenge? #

Japan holds huge quake drill

In November Wellington and other key regions will be testing their response to an earthquake in Wellington. For us, Exercise Capital Quake is quite resource hungry but we have a long way to go to match Japan which holds an annual earthquake disaster drill on September 1. This year's drill mobilised about 800,000 people around Japan as well as scores of U.S. military personnel for the first time and several South Korean rescue workers.



School children sheltering under desks during the drill

The exercises, held every year on the anniversary of the Great Kanto earthquake which killed more than 140,000 people on Sept. 1, 1923, are a reminder that the island nation, where earthquakes occur frequently, must be vigilant.

This year a touch of reality was injected when an earthquake with a preliminary magnitude of 5.7 struck south-

ern Japan shortly before the drills started but there were no reports of damage or casualties.

In a mock news conference on September 1st a grim-faced Prime Minister Junichiro Koizumi said that massive damage had been caused by an earthquake that struck Tokyo earlier in the day. Koizumi's announcement was based on a scenario in which an earthquake struck directly beneath Tokyo with a 7.3 magnitude in the morning rush hours, a level identical to a quake that hit the city of Kobe in January 1995 that killed more than 6,400 people.

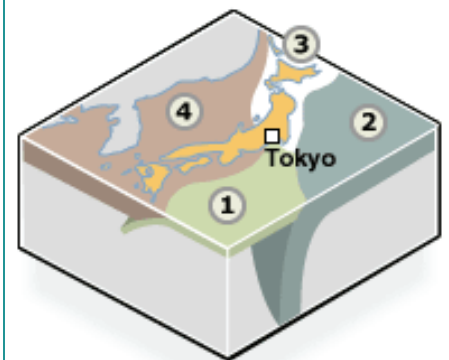
Under the scenario, the quake killed 4,300 people, injured 154,000 and left 4.47 million people stranded. The major tremor destroyed nearly 110,000 homes and sparked fire that burned down 73,000 houses. Rescue workers rappelled down the side of skyscrapers, helicopters

lifted people from rivers, and fire trucks were mobilised to take people from the roof of a high-rise building. The U.S. military mobilised the Frigate USS GARY to transport 30 "evacuees" from the Tokyo Bay to Yokosuka, a U.S. navy base for the Seventh Fleet. Five members of a South Korean rescue team from a fire department in Seoul also took part for the first time.

Japan accounts for about 20 percent of the world's earthquakes of magnitude 6 or greater. A government earthquake panel said in August that there was a 70% chance of a quake around magnitude 7 hitting Tokyo in the next 30 years killing more than 7,000 people and injure around 160,000. Official estimates of economic damage have topped more than \$1 trillion.

Tokyo, with a population of 12 million, sits on the junction of four tectonic plates: the Eurasian, North American, Philippine and Pacific. The sudden bending or breaking of any plate can trigger an earthquake. #

SHAKY FOUNDATIONS



KEY:

1. The Philippine Sea Plate
2. The Pacific Plate
3. The North American Plate
4. The Eurasian Plate

Help Wanted

John Moloney, Area Medical Coordinator for Medical Displan Victoria has a project looking at care of patients in the immediate aftermath of an evacuation of a hospital or nursing home. He is looking for guidelines or other documentation on what happens to the patients while the emergency services can be organised to transport them to another facility.

His basic issue is that most evacuation

plans he has seen stop at the car park, with no detail about care of the patients thereafter. He questions whether this is because no thought has been put into it, or there is an assumption that ambulance will just come and take them away.

John is looking for all sorts of ideas around this issue, such as the organisation of patients and staff, communication, shelter, oxygen, power etc.

Have you covered this issue in your plans? If so, contact John at John.Moloney@dhs.vic.gov.au

The Journal of Emergency Primary Health Care Volume 4 Issue 3 is now available online at www.jephc.com/issue_contents.cfm?issue_id=27

The journal is based at Monash University in Melbourne and has a strong paramedic emphasis in an Australasian context

End Disaster Exceptionalism say critics

The massive amounts being spent in the United States on bio terrorism and now pandemic preparedness has come under fire from those who see this expenditure as an emotional knee jerk reaction that does not address the major causes of death in the country. Dr Joshua Lipsman, Public Health Commissioner in Westchester County, NY and a controversial spokesperson on public health issues, has called for an end to "disaster exceptionalism."

Lipsman cites a 1993 study by McGinnis and Foege where they contrasted the 10 leading diagnoses of death in the United States in 1990 with the actual causes of those deaths. They found that 50% of deaths were attributable to behavioural choices as opposed to genetic and external factors and thus were potentially responsive to public health education and prevention interventions. A later 2000 study produced similar results.

In the U.S., between 6% and 8% of all annual public health expenditures go toward public health emergency-preparedness efforts.

Lipsman says that about 2.5 million people die in the United States each year with half of those deaths being potentially preventable, and thus appropriate for public health attention. Approximately 800,000 people die annually from smoking, eating too much, or being physically inactive. Continuing down the list of root causes of death, alcohol consumption (85,000 deaths) and microbial agents (75,000 deaths, including those from influenza, pneumonia, septicaemia, and tuberculosis, though not HIV) each are responsible for between 3% and 4% of deaths.

In 2003, the U.S. government committed \$1.6 billion for biological terrorism preparedness to state and local governments, who have primary responsibility for public health in that country. Subsequent annual grants to states have remained relatively stable at around \$1.3 billion, during which time the emphasis in public health emergency plan-

ning has shifted to include preparedness for pandemic influenza.

By comparison there are \$5.9 billion in annual federal contribution to states for all other public health programs, with a further \$10-\$15 billion that is spent annually by the states themselves on public health.

Even with the imprecision in these figures, these numbers suggest that between 6% and 8% of all annual public health expenditures go toward public health emergency-preparedness efforts. Lipsman questions whether this level of expenditure is proportionate to the impact of public health emergencies on health and should the focus rather be on those factors that represent the root determinants of death and disability.

Lipsman goes down the track of looking backwards where there is a clear 20/20 vision rather than peering into what might be coming in the future. He totals the cumulative sum of US deaths from the 9/11 World Trade Centre catastrophe, the devastation of Hurricanes Katrina and Rita, anthrax, smallpox, plague, SARS, and avian flu as less than 5000. And while accepting that all those deaths in one year would be a horrific thought, they would still represent less than one half of 1% of all preventable deaths annually. He proposes that spending 6% to 8% of public health dollars on preparing for problems that cause only a fraction of 1% of deaths is not a good use of public health funding.

He then goes on to use the concept of "exceptionalism" – which he sees as a double edged sword - to support his case.

Exceptionalism

When it first became apparent in the 1980s that AIDS was a new epidemic, arguments were made - and accepted - that it should be handled differently from other infectious diseases. This philosophy, known as "AIDS exceptionalism," consists of significant deviations from what otherwise would be standard public health practice in the areas of infection control, surveillance, partner notification, and testing. These



Joshua Lipsman

deviations were justified on the basis of public policy concerns and the relative lack of effective clinical interventions during the early years of the epidemic.

Lipsman states that public health leadership has had reservations about the adverse impact of AIDS exceptionalism, but has been complicit with it for many years out of respect for people infected with and affected by HIV and AIDS. He claims that public health officials are now questioning AIDS exceptionalism in an effort to shift paradigms and to make progress in the stalled fight against AIDS in the U.S. and he proposes that now time to also recognize and to put an end to "disaster-preparedness exceptionalism."

For Lipsman, both disaster-preparedness exceptionalism and AIDS exceptionalism arose out of new public health threats that appeared over a relatively short period of time, and for which there were then no apparent, easily-applied, existing conceptual models to deal with them. Both inspired great fear of imminent peril to large numbers of "innocent" victims. Both had the potential to cause enormous human suffering and relatively rapid, painful death among individuals who were directly afflicted. Without in any way minimizing their many distinctions, at heart what both have in common is that their exceptionalist approaches are driven more by emotion than by science.

(Continued on page 9)

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

Editor: Bruce Parkes
St John, Northern Region
bruce.parkes@stjohn.org.nz

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

Up coming Events

9—10 November 2006

Planning for Volcanic Crisis

Mercure Hotel, Auckland

Cost: \$533+ GST

Optional field trip extra \$100

More information from:

www.naturalhazards.net.nz/courses

20—22 November 2006

8th Asia Pacific Conference on Disaster Medicine

Tokyo Conference Centre, Shinagawa

Cost: Doctors ¥30,000; Others ¥10,000

More information from:

www2.convention.co.jp/8apcdm/

27—28 November 2006

NZ Border Control and Port Security

James Cook Hotel, Wellington

Cost: \$2475

More information from:

www.iir.com.au/security/

23 - 25 February 2007

International Meeting on Emerging Diseases and Surveillance (IMED 2007)

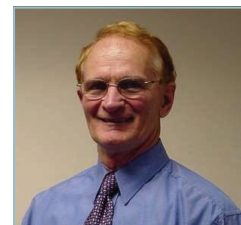
Vienna Hilton, Vienna, Austria

Cost: EUR € 300.00 before 22 December

More information from

<http://imed.isid.org/>

Editor's soapbox



Have you noticed how our media literati are dropping segue (seg-way) in to their written and oral commentaries? The definition of the word, which you won't find in your office dictionary, is to proceed without interruption; to make a smooth transition.

The first false shots of Makgill communications shows that there was no segueing from normal business to a major incident footing. That is not a bad lesson to learn. When a big event, pandemic or otherwise, arrives there will be a level of confusion and a number of false starts as people are rushed into new roles and grapple to get on top of those roles and responsibilities. The more training and exercising we do, the more segue we will experience as we move into response mode.

At a recent CBAC workshop I was rather surprised to be told that one DHB had no intention of providing food for staff working in the CBAC. "Staff are responsible for their own meals now, so why should that change?"

Well Ma'am you are going to have to learn to segue from everyday activity to CBAC response mode. Otherwise you are not going to have any staff coming to work in your CBAC. If ever there was a time when we have to give more than lip service to the phrase, "staff are our most valuable resource," this is it. Plan to pamper them a little. It might cost you a few cents more but they are going far beyond the call of duty for you and their community and will respond well to your expression of care.

Bruce Parkes

(Continued from page 8)

The 2 predominant concerns in U.S. public health preparedness today are bioterrorism (usually smallpox, anthrax, or plague) and pandemic influenza. Proponents argue that when the former Soviet Union disintegrated, its stores of biological weapons migrated to the arsenals of rogue nations and non-state actors, where they sit today waiting to be deployed. Yet it seems strange that hostile parties who allegedly have such deadly weapons would sit by and not use them when their potential impact would diminish with each passing year as counter technology improves.

Pandemic influenza gets a similar serve from Lipsman who says we cannot realistically prepare for a catastrophe the magnitude of which cannot be known. With the potential scope of an influenza pandemic being estimated to range from a size somewhat greater than current seasonal influenza outbreaks to one affecting up to 40% of the population, the problem of such uncertain parameters is a sink for never-ending resource utilisation. He believes the best response to such uncertainty is not to continue to spend disproportionately large sums of money with no clear end in sight, particularly when other extant public health problems are so pressing.

He advocates a focus on the true root determinants of death and disability and an end to disaster-preparedness exceptionalism, with spending on public health substantially increased while spending on public health emergency preparedness simultaneously decreased. Periodically, says Lipsman, there arise daunting public health problems whose novelty and emotional impact render us susceptible to exceptionalism. The sooner we recognize this and resume proven public health practice, the sooner we will optimally focus our efforts on behalf of the health of the public. Now is the time to end disaster-preparedness exceptionalism. #