

Beyond Z-Cards and Grab Bags: Community Resilience in Urban Communities

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1. Introduction

Background and Travelling Fellowship goals

To me, community resilience is all about getting groups of people to do a bit more together so they can be prepared for things that might upset their way of life, in a manner that means they might even come out of things better off than before. This is a good thing when in relation to emergency management, especially with an increasingly small public purse, because this means that finite resources can be directed to the ones most in need.

Public organisations are increasingly keen to develop resilience in their communities, but often struggle to know where to start. In the past, emergency management efforts in London have tended to focus on providing emergency preparedness leaflets, Z-cards or grab bags to residents.

Z-cards, are fold-out leaflets to be stored in a hand bag or wallet, with key information about insurance details, utilities account numbers and providers, emergency contact details for emergency purposes. A grab bag or go bag is an emergency bag kept by the front door for a quick evacuation and contains essential items such as a list of medications, spare medications, a torch, spare batteries, a change of clothes, non-perishable foods, pet supplies, etc.

This sounds great in practice- but I have yet to meet an emergency planner who actually has either a completed Z-card or grab bag themselves. Why then, are we telling people to do things that, as relative experts, we do not do the same? In addition, these things do little if anything to improve the resilience of a community, as they tend to focus on developing the resilience of the individual, or at most, their family. Finally, they only solve the very short term problems that a person may face in an emergency, when in reality emergencies can take weeks, months or years to recover from.

Aim of this report

I was fortunate to receive funding from the Winston Churchill Memorial Trust to become a Winston Churchill Travelling Fellow. This allowed me in July and August 2013 to spend six weeks in the United States of America and Canada looking into Community Resilience in urban environments. I based my journey around four main cities- New York, San Francisco, Vancouver and Toronto. By visiting these cities, I hoped to try to find different ways of tackling the issue of community resilience, so that I could bring back lessons for the UK.

The goals for my trip were to:

- Spend time in other urban communities and learn from their experiences.

- Meet colleagues in the international emergency management community and understand what they have done and how they have got that position of getting the community more involved in becoming more resilient to future crises.
- Engage with regional and national government to see how their work supports and encourages a sense of shared responsibility for resilience within the community.
- Find out about successful projects and investigate why they have been successful to see what can be considered for application on my return to the UK.
- Put forward recommendations for urban community resilience projects that could be viable and suitable for the UK's risk profile and demographic.

The primary aim of this report is to set out the findings of my Travelling Fellowship and in so doing, answer some of the questions I set out my journey with. Questions that I set out with on my journey, and therefore hope to answer in this report include:

- How, if at all is community resilience measured?
- How successful are Community Emergency Response Teams programmes?
- How successful is engagement with the business sector?
- Are there any success stories? If so, how is success measured? What makes a successful initiative and why?
- How does the emergency management structure enable community resilience?
- How does the political structure enable community resilience and link with funding?
- Is there a link between funding and success of campaigns?
- What is the motivation for volunteers?

From the outset it became apparent that some questions were almost impossible to answer. On the positive side, there are many other points of interest that I discovered that I had not even considered asking about in the first place. Some information will not have made it into the report because although of interest was not directly related to Community Resilience, but will be forwarded through other means to parties I think could benefit.

The audience of the report is expected to be broad. A report is required by the Winston Churchill Memorial Trust, but in addition I am writing it for the benefit of other emergency management professionals, to disseminate the information that I have found. Although information in the report will be relevant to regional and national organisations, my focus is intentionally on the local level. Wendy Graham, a Winston Churchill Travelling Fellow from Australia, has reported on the effectiveness of disaster assistance programs in promoting individual and community resilience in recovery from disasters¹, which will be of interest to those looking at community from a higher level.

¹Wendy Graham, (2011) *Winston Churchill Fellowship to study effectiveness of disaster assistance programs in promoting individual and community resilience in recovery from disasters*. Available online at <http://www.churchilltrust.com.au/fellows/detail/3548/wendy+graham>

2. Urban community resilience

Resilience and communities

Recently ‘resilience’ has become a bit of a buzz word in use in everyday language, sometimes with ambiguous meaning. Debates about defining resilience tend to hinge around what context the word is used in. Over the years it has been used in a variety of settings to describe people (by sociologists, psychologists and emergency planners), materials (by engineers), ecology (by ecologists) and even societies, businesses and financial systems (by geographers and economists alike). David Alexander’s discussion paper on the etymology of the resilience in relation to disaster risk reduction, is very insightful for those struggling to understand why there are so many different aspects.²

Far from being a new linguistic upstart however, the word resilience actually stems from the Latin for ‘to bounce’, so it is no wonder that we are besieged by ‘bouncebackability’. However, the snappy word often used by football pundits does not do justice to what is being described these days. Below is a small sample of recent definitions:

- *“The capacity of an individual, community or system to adapt in order to sustain an acceptable level of function, structure, and identity.”*³
- *“The ability of a system or organisation to withstand and recover from adversity.”*⁴
- *“The ability to adapt to changing conditions and withstand and rapidly recover from disruption due to emergencies.”*⁵
- *“The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure.”*⁶

‘Community’ can mean a variety of different things too. The UK’s National Framework for Community Resilience identifies that as well as **geographic communities** (groups of people identifiable as a group because of their physical location, communities such as villages, wards or parishes), there are also other types of communities. These are:

- **Communities of interest**- normally a voluntarily shared interest such as sports groups, parent teacher associations, faith groups etc.;
- **Communities of circumstance**- something has brought these people together normally unwillingly, such as passengers on a commuter train or survivors of an accident;

² Alexander, D. E. "Resilience and Disaster Risk Reduction: An Etymological Journey." *Natural Hazards and Earth System Sciences Discussions* 13 (2013): 2707-2716

³ Edwards C (2009) *Resilient Nation*, London, Demos available at <http://www.demos.co.uk/publications/resilientnation>

⁴ Michael Pitt- Pitt Review (2007), as quoted in the UK’s Strategic National Framework on Community Resilience.

⁵ White House, “Presidential Policy Directive 8 (PPD-8),” March 30, 2011.

⁶ UNISDR Terminology: <http://www.unisdr.org/we/inform/terminology>

- **Communities of supporters-** in relation to emergencies, supporters are the emergency responders.

This differentiation is important, because one person could be a member of any number of communities concurrently- as a resident, as a parent, as a commuter, as a member of a particular faith. So focussing community resilience efforts only on geographic communities may not be a realistic model of real life and challenges the one 'Community Emergency Plan' model.

Community Resilience

As there is a seeming increase in the number and size of emergencies affecting communities all over the world, more attention is being paid to why some communities are able to respond and recover quickly, whilst others flounder or never fully recover.

The Cabinet Office describes community resilience as "Communities and individuals harnessing local resources and expertise to help themselves in an emergency, in a way that complements the response of the emergency services."⁷ This definition is naturally very focused on emergencies, but does not touch on the broader nature of how a community can respond, which includes the things that make people able to come together before, during and after an emergency. This sentiment was echoed by Dr Hugh Deeming in his recent talk at the UK's Emergency Planning College who thinks that the above definition is now inappropriate⁸. In addition, the Civil Contingencies Secretariat has hinted that it is likely to move away from the words 'Community Resilience' towards 'Communities Prepared', so this may reflect the difficulty of conveying what is meant by it.

So, to me, Community Resilience means:

A group of people who are unified by something.

Experiencing a change of some sort (normally negative): emergency, trauma or abuse, instability, a strong force, expected or not

Group + Changing Situation + Awareness = OK

Of their assets, resources, capabilities, weaknesses, support systems, hazards and threats, plans, how to get help

The Group will adapt and emerge with limited damage, be able to continue and potentially thrive

⁷Cabinet Office, 'Strategic National Framework on Community Resilience', (2011)

⁸'In the Chair' with Hugh Deeming at the Emergency Planning College. Available online at: <http://www.youtube.com/watch?v=RLoMZBfCGqo&feature=youtu.be&a>

Interestingly, in his discussion piece, Alexander concludes that ‘the modern conception of resilience derives benefit from a rich history of meanings and applications, but that it is dangerous – or at least potentially disappointing – to read to [sic] much into the term as a model and a paradigm.’⁹

The makings of a resilient community

It is more useful to be able to recognise the signs of a resilient community, than perhaps being able to define it. The following summary of characteristics is drawn from a number of sources and shows how broad a subject it is and actually how improvements in any of the areas could contribute to community resilience¹⁰:

- **Social capital:**
 - Strong ties and connections between the members and networks of a community;
 - Positive attitudes regarding self-reliance and self-help;
 - People know where to go to get help;
 - Trust and cooperation between each other and the statutory support;
 - High levels of social integration of government and non-governmental organizations in planning, response, and recovery – with capacity at a local level;
 - A champion.
- **Human capital:**
 - High levels of individual, family, community knowledge and skills;
 - Ability to access and draw upon local knowledge;
 - Understanding of strengths and weaknesses and local hazards;
 - Effective risk communication;
 - Flexibility and adaptability- Ability to quickly and effectively harness local resources and expertise;
 - Physical and psychological health of the population;
 - Social and economic well-being.
- **Natural capital:** land and natural resources (safe and sufficient quantity of water and land), environmental security, and connection to the land.
- **Produced and financial capital:** infrastructure, wealth/ money, machinery and equipment.

It is clear that social and human capital are essential elements of community resilience- the physical infrastructure and structures that help to deal with emergencies are less easily influenced at a local

⁹Alexander, David E. (2013) "Resilience and Disaster Risk Reduction: An Etymological Journey." *Natural Hazards and Earth System Sciences Discussions* 13 (2013): 2707-2716

¹⁰RAND, (2011) *Building Community Resilience to Disasters, A Way Forward to Enhance National Health Security*. RAND Corporation. Available at http://www.rand.org/content/dam/rand/pubs/technical_reports/2011/RAND_TR915.pdf; The Centre for Applied Research <http://www.jibc.ca/research>, Fournier, Stefan (2011), *Beyond Sandbagging; Building Community Resilience to the Impacts of Climate Change*. Conference Board of Canada.

community level. I wanted therefore to concentrate on the human side of resilience; how and why people act together and how this demonstrates building social capital.

Social capital works by ¹¹	Examples of relevance to emergency
Increasing access to information	People will be able to pass on where help and assistance is, and what local risks and hazards are
Providing a greater sense of meaning that individuals find from social engagement	People like to be part of something that is getting things done- it stops them feeling helpless
Developing stronger group social norms that members feel pressure to conform to	e.g. I am going to check on my elderly neighbour in a power cut or share my provisions or I am going to volunteer because I can see that others are doing it too
Aiding reciprocity (e.g., I do something for someone else in the group now without expecting any immediate repayment because I expect that they, or someone else will do something for me down the road)	It would encourage people to be more helpful to others in preparing and responding- because they aren't doing it to get something in return.
Facilitating of collective action-a way of saying it makes it easier to do things that require collaboration and concerted response	Responding to an emergency always requires collective action

Urban environments

Focusing on community resilience through the lens of an urban community, rather than a generic community, is interesting for two reasons, primarily. The first is that the Cabinet Office toolkit for community resilience has one main tool- the Template Community Emergency Plan. A community (a geographic community is inferred) should get together to fill their emergency plan that sets out a plan of action for how they will deal with an emergency together in support of the emergency services. This works when a community can be easily defined and the resources are relatively finite – in small rural communities for example. It does not apply easily to an urban environment where the social make up of a community is more fluid and where people move more regularly. Putting such a plan together would be impractical and keeping it up to date even more onerous.

The second reason is that rural communities although in some cases are more vulnerable because of their isolated locations and distance from emergency services, tend to be acutely aware of these

¹¹ Sander, Thomas, Executive Director of the Saguro Seminar, Harvard University on Tina Rosenberg's book *Join The Club. How peer pressure can transform the world*. <http://socialcapital.wordpress.com/2011/05/16/peer-pressure-as-social-cure-rosenbergs-join-the-club/>

isolating factors and exhibit more resilience in their everyday habits- keeping petrol topped up, having spare food in the cupboards, having wood for burning and knowing their neighbours etc. Urban residents have high expectations of service and expect instant access to everything, from transport, to food, to internet access and power. Life is lived with using a just-in-time mentality. When these things are not there, urban residents can feel a bit helpless, as their support networks of friends are unlikely to live very close by.

In regards to community resilience, **urban communities have some unique weaknesses**, including:

- A more vertical community - making rescue, evacuation and response more challenging;
- A complex network of interconnected systems- an incident in one place can lead to unexpected consequences elsewhere;
- A cultural or economical hub, supporting a wider region – so urban disruption can have far reaching impacts;
- Residents and businesses are used to instant gratification– they are not used to waiting long;
- Space and accommodation is at a premium, therefore do not have storage capacity or for stockpiling or keeping supplies.

However, there are many ways that **urban communities are at a distinct advantage**, including:

- Cities are often made up of very diverse communities- in some cases, this is the reason those people live in that city, because they are welcome, accommodated and supported, or those whose needs may not be so easily met elsewhere (this is particularly true of some ethnic communities, faith based communities and communities such as the LGBT community).
- Cities are supported by a diverse economy, rarely centred around one source of income and therefore also contain a diverse range of skills in the population.
- Cities have a lot of physical assets that rural or less populated areas do not - not only emergency response capability in close proximity, but also people, buildings and equipment.
- Again because of the complex nature of cities, there is often more than one way to get things done- for example, multiple places to buy items, multiple transport options etc. In this way there is a 'fall back' option, which is not always there in rural communities.
- People in cities tend to be well connected in terms of access to technological aids.

So although cities have a different range of challenges to face, they are also gifted with some advantages not present in rural areas. Resilience building activities should take these into account to harness the strengths rather than battle with the weaknesses.

3. Assessing Community Resilience

This chapter looks at suggestions of how or even if community resilience can realistically be measured, assessed or modelled.

UNISDR- Making Cities Resilient Campaign

One way of assessing a city's resilience (though not necessarily at 'community' level), is the UNISDR's (UN Department for Disaster Risk Reduction)¹² ten-point checklist. The ten parts relate to the resilience of not just the people, but also the infrastructure of the city. The ten points were designed to tie into the five priorities of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters¹³, which will soon be updated as it reaches the ten year mark.

When I visited Stephen Goldfinch and Maria Hasan at the UN Offices in New York, they were quick to point out that the Making Cities Resilient Campaign does not define what a 'City' is or what 'Resilience' is, in order to be as inclusive as possible. Over 1580¹⁴ cities are now taking part in the campaign - interestingly NOT New York, and not one city in the United Kingdom. The campaign has role model cities (including San Francisco and parts of Vancouver/ Vancouver Island) which have made notable contributions to improve resilience for their communities. They are looking to expand the city to city learning model and have found the role model concept to be very successful- especially in terms of sharing lessons.

To qualify as a 'Resilient City' the urban area must demonstrate:

1. Organization and coordination to understand and reduce disaster risk;
2. Assign a budget for disaster risk reduction;
3. Preparation of risk assessments and use them as the basis for planning decisions;
4. Invest and maintain critical infrastructure that reduces risk;
5. Assess and upgrade as needed the safety of all schools and health facilities;
6. Apply and enforce realistic building regulations and land-use planning principles;
7. Education programs and disaster risk reduction training;
8. Protection of ecosystems and natural buffers;
9. Early warning systems and emergency management capacity; and
10. Place needs of the survivors at the centre of reconstruction.

San Francisco, the North Shore Emergency Management Office (NSEMO) in Vancouver and Oak Bay and View Royal in Victoria, Vancouver Island, had all used the checklist to either assess their resilience (as a starting point for developing resilience in the case of Oak Bay and View Royal) or as a useful tool to help document what has been taking place (in the case of NSEMO). There were mixed

¹²<http://www.unisdr.org/campaign/resilientcities/toolkit/essentials>.

¹³<http://www.unisdr.org/we/coordinate/hfa>

¹⁴<http://www.unisdr.org/campaign/resilientcities/cities>, last accessed on 11th November 2013

feelings amongst the interviewees (both participating and not) about whether the campaign is pitched at the right level for relatively well developed cities. It could be argued that the programme is of more use where a city is relatively new or developing rapidly, rather than a developed city that is likely to have the basics covered already- it is not necessarily challenging enough for those cities, who could still do more.

Polling for Preparedness or Resilience

A typical way of measuring community resilience activities that came up several times, was recording attendance numbers at training or awareness raising events, or counting the number of training materials or information leaflets given out.

New York City in the United States and the City of Brampton in Canada are amongst several of the cities I visited that regularly poll their residents to see how prepared they are. Herman Schaffer from New York OEM admits that response rates over the past few years have changed very little and that these answers are difficult to influence or change anyway. Just because a person picked up a leaflet at a public safety event or been given a z-card, does not however, mean that they will have done anything with it to make themselves or their community resilient.

More useful considerations, he believes, are measures of how connected a community is, or how much reach the Office of Emergency Management has in terms of getting a message out to specific or all parts of the community. He believes this is the key, which is why the New York OEM is continually working on being well connected to all sectors and knowing where to target messages so that they get to the right people. So it is not just residents and businesses who need to build social capacity; emergency management organisations need to do this too. They need to interact with as many different communities as possible to understand who the connectors and mavens are¹⁵.

Polling residents and businesses may not be the wrong approach then - but we may have been asking the wrong questions. In order to understand the resilience of our communities, we could be asking questions that look at their social capacity- what kind of support networks do they have? Where would they go to for help? Could they borrow 50 pounds from someone at short notice, how about 250 pounds? Who do they trust when it comes to finding information?

In June 2013 the Associated Press and NORC published a very insightful report on resilience and New York¹⁶, having polled over 2000 people from across the United States, including over 1000 from regions affected by Superstorm Sandy. The report contains a raft of information including:

- Neighbourhoods which lacked social cohesion or trust generally had a more prolonged recovery time or are still recovering.

¹⁵Gladwell, (2000), *The Tipping Point: How Little Things Can Make A Small Difference*, Little Brown and Company, Boston.

¹⁶Trevor Tompson, Jennifer Benz, Jennifer Agiesta, Kate Cagney, and Michael Meit, (2013)*Resilience in the Wake of Superstorm Sandy*, The Associated Press-NORC Center for Public Affairs Research with funding from The Rockefeller Foundation. Available online <http://www.apnorc.org/projects/Pages/resilience-in-the-wake-of-superstorm-sandy.aspx>

- Many say that they turned to family, friends and neighbours for support or assistance, and 63% of those reported that they were helpful.
- Far fewer affected people turned to the government for support or assistance (16% turned to FEMA and 7% to the state). Of those only who asked them for help, only 26% found state officials to be quite a bit of help and a mere 19% found federal officials to be helpful.
- It also shows the kind of things that people shared with each other, as well as to show that the negative aspects of disasters that can sometimes be reported in the media, are by far outweighed by the positive aspects of people helping each other.

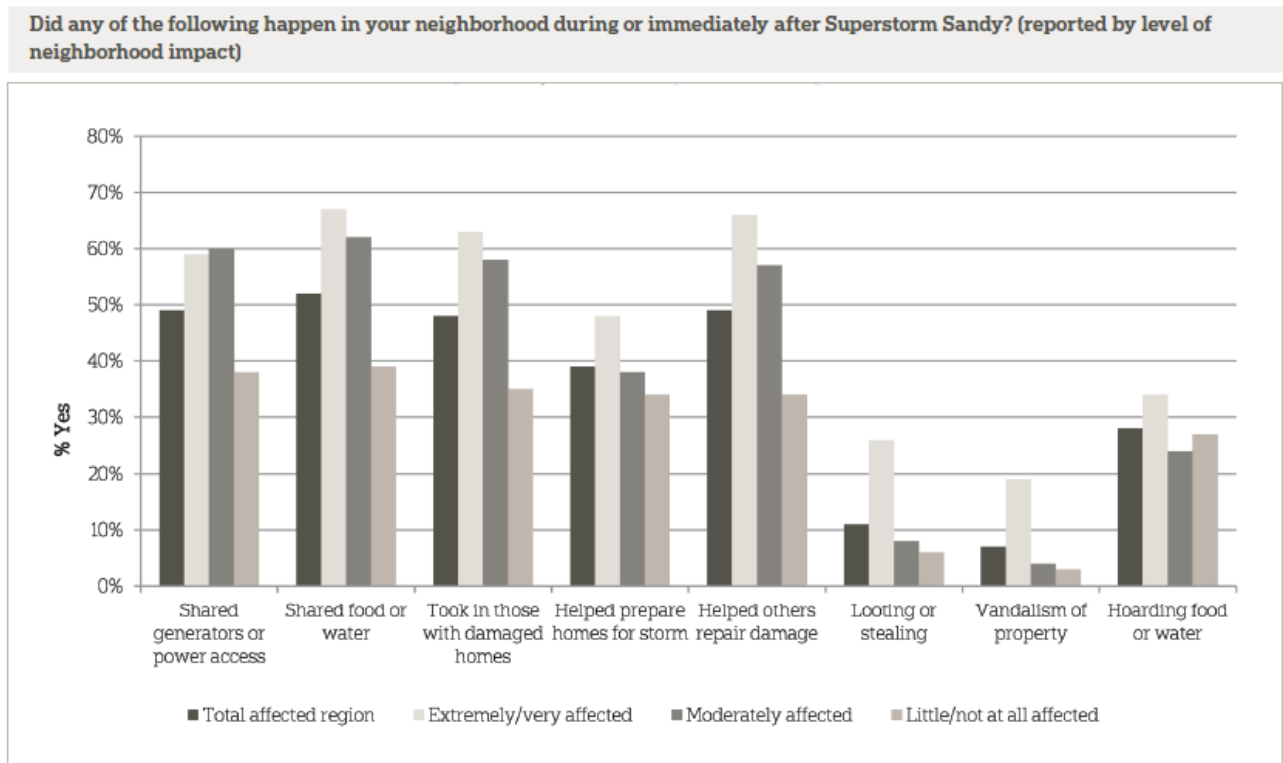
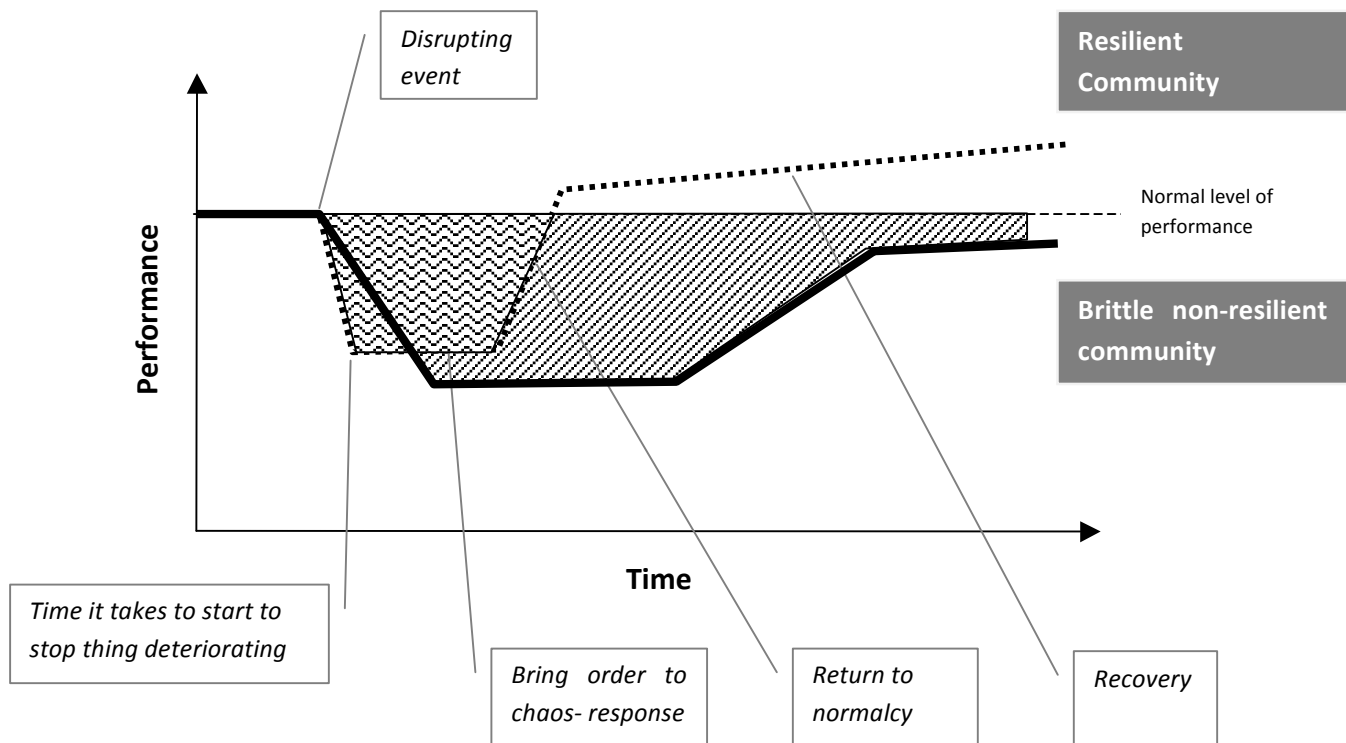


Figure 1: Source- Resilience in the Wake of Sandy- Final Report

This report is a very good place to start to understand how resilience affects recovery and which factors contribute to success- it is well worth the read.

Modelling resilience over time

Steve Flynn from Northeastern University in Boston gave a further more abstract way of modelling resilience in a community.



In this model the resilient system (or community):

- is able to start to respond in a shorter time frame, with less loss of performance
- the response is more nimble and resourceful in the consolidation phase where order is brought to a chaotic situation, so this is a shorter period of time.
- the return to normalcy is quicker and in some cases results in better performance than before the event.
- the recovery phase is ongoing and the system (or community) continues to improve performance.

Steve looks at community resilience in this way because for him, community resilience is a competitive advantage for the community- it is community level business continuity. Cities (and also non-geographic communities too) are organisms that need to be competitive to survive. They have to ensure that they are fit and healthy to entice businesses to the area and to make residents live there. A resilient community will be able to respond quickly and effectively to an incident, in a way that continues to attract businesses and residents back to the area, if they were forced away. After Hurricane Katrina, many of the evacuated residents never moved back to the city, which has caused a huge cultural void in a once vibrant city. San Francisco's Department of Emergency Management are adamant that they do not want the same thing to happen to their city if people are evacuated due to a large earthquake.

One reason I like this concept is that it shows that resilience can be a benefit at all stages of the emergency cycle e.g. mitigation, preparedness, response, and recovery. Irrespective of the names or numbers of phases in use in any one country (some countries also have a prevention phase for example)- community resilience building activities can take place at each phase, because this all contributes to the overall benefit in the long run.

What is clear is that there is no one way to measure community resilience objectively, which is in part because in order to measure it in a consistent way, there would need to be one definition of what it is, and we know that this is not the case. After an incident it is easier to measure where people have gone to for help, see how long recovery efforts are taking and which networks worked well, but it is still not possible to put a finite figure on levels of resilience.

4. Factors enabling or constraining community resilience

Emergency Management Structure

In the United States local agency emergency operations resources range from volunteer and part-time coordinators with few resources and little authority to large, highly professional organizations with state-of-the-art information technology and staffs with extensive training and experience. Due to limited state and local funding, many local emergency managers are part-time public employees, unpaid volunteers, or employees of regulated disaster-related agencies (such as police departments) to whom emergency management comes in addition to their other normal duties. Some local emergency management offices, particularly in large urban areas with significant histories of disaster (such as San Francisco and New York), are professionally staffed with and have access to considerable resources.

The Federal Emergency Management Agency (FEMA) was created in 1979 to coordinate federal support with state and local efforts during a disaster. Federal assistance to states and local governments is available upon request when state and local capabilities and response resources are overwhelmed.¹⁷ The process takes time to be enacted, as first a Gubernatorial proclamation must be made by the state Governor. This proclamation serves as a request for the President to declare a disaster and to open the Stafford Act for access to federal disaster funding. FEMA manages the federal funding process to reimburse state and local governments for their approved response and recovery costs. Funding reimbursement follows the policies of FEMA Public and Individual Assistance programs. Funding assistance can be given once the State Governor's office has collated data and ensures proper documentation processes have been followed.

It has ten regional offices with around 2,400 full-time employees and can mobilize nearly 7,000 temporary disaster assistance employees (DAEs) if needed. FEMA cannot act at all until the State's Governor has officially requested help. The process of activating a FEMA response takes time, as they must first assess what assistance is required and decide whether it can be given. A lack of understanding from both the public and officials in terms what FEMA can do and how quickly, has on occasion led to frustration with the length of time the response takes and what is provided federally. To a degree, the system (because of the number of personnel and their visibility in emergencies) reduces community resilience in so far as it promotes a feeling that FEMA has the resources to solve all problems and limits the responsibility that individuals or other groups may need to assume.

Since 2003 FEMA has been a part of the Department of Homeland Security, whose focus was on securing the nation's borders and protecting civil aviation, as a result of the terrorist attacks on 9/11. This meant that resources were almost entirely focused on preventing terrorist attacks from

¹⁷ William L. Waugh, Jr., (2010) *Public Administration and Emergency Management*, FEMA Training Course. Available online: <http://training.fema.gov/EMIWeb/edu/paem.asp>

happening, with a minimal appreciation that it is impossible to stop all attacks, that some may be home grown and that non-malicious emergencies, such as natural disasters also need to be prepared for. This detracted from any kind of resilience building activities and affected grant funding available. The situation has changed when President Obama issued Presidential Policy Directive 8 (PPD8) in 2011, giving a greater emphasis to communities and the full range of emergency phases: prevention, protection, mitigation, response, and recovery¹⁸.

The FEMA model encourages emergent volunteering (which by its nature builds resilience- as it is people helping people, although many come from outside the affected area to help) in the aftermath of a disaster. Any state receiving support through FEMA programmes is still liable for 25% of the costs. However, volunteer hours are deductible against this 25% figure (because the more volunteers do, the less has to be done by state or federal assets). If the volunteer response is large enough and the state has robust volunteer hour monitoring systems in place, it is possible to write off the whole 25%. This in a way forces the emergency management organisations (from State level down) to have a very robust plan for how to encourage and monitor volunteerism.

For the same period that the UK Government has been extolling the virtues of Community Resilience, the FEMA has been pursuing a new philosophical approach to emergency management- **The Whole Community Approach**. The idea is that the whole community is involved in the emergency management process and accounted for in the plans that evolve. Whole Community Strategic Themes include:

- Understand community complexity
- Recognise community capabilities and needs
- Foster relationships with community leaders
- Build and maintain partnerships
- Empower local action
- Leverage and strengthen social infrastructure, networks and assets

For anyone who has been looking into community resilience, this sounds awfully familiar. The main difference between Whole Community and Community Resilience in the two lies in the responsibility for doing the work. The Cabinet Office National Strategy Framework, states clearly that responsibility for making communities more resilient, lies with those communities themselves and not the government. FEMA is equally clear that the Whole Community approach is everyone's responsibility, especially emergency management professionals.

In Canada, traditionally and in line with legislation, the responsibility for dealing with emergencies starts at the lowest level and then passes on to successive levels of government, as additional

¹⁸ *Presidential Policy Directive / PPD-8: National Preparedness*. (2011) Available at <http://www.dhs.gov/presidential-policy-directive-8-national-preparedness>

resources and expertise of each are needed. This would typically involve the municipality, region, province and then federal government. Public Safety Canada is the national disaster response agency and as such is responsible for protecting Canadians and helping to maintain a peaceful and safe society. The emergency management cycle in Canada is based on Mitigation, Prevention, Preparedness, Response and Recovery.

As in the United States, emergency management offices are staffed with a mixture of professionals and volunteer staff members. Anecdotal evidence suggests that numbers of staff have reduced over the past year due to the reduction in budgets at federal level. Many smaller municipalities use volunteer emergency management staff or ask existing members of staff from other agencies (police and fire service typically) to cover the responsibilities.

A whole community approach, mirroring the American vision, is also alluded to but not clearly defined in documentation- Public Safety Canada supports ‘a whole-of-society approach to emergency management that leverages resources and capacities at all levels across the country. All Canadians also have a role in building resilient communities, helping to keep hazards from becoming disasters, and in recovering from disasters when they do happen “Be Prepared”¹⁹.

The Canadian federal Emergency Management Act is supported by another layer of legislation at provincial level. In Ontario for example the Emergency Management and Civil Protection Act (R.S.O. 1990) requires each municipality to develop, implement, and maintain an emergency management program as well as requiring each municipality in Ontario to designate a Community Emergency Management Coordinator (CEMC). The CEMC coordinates the development, implementation and maintenance of the community’s emergency management program²⁰. This approach is relatively standard across Canada. It is also relevant to community resilience that legislation requires each municipality to have a public education programme.

ICS and IMS

Both the United States and Canada use a **standardised incident management system** during emergencies; IMS (Incident Management System) in Canada and ICS (Incident Command System) in the US. This supports community resilience in so far as many Emergency Operation Centres (EOCs) give consideration for local voluntary agencies and the business sector in their layout. For example, in San Francisco, the EOC has a community branch which is normally represented by SF CARD (San Francisco Communities Agencies Responding to Emergencies, an umbrella organisation representing

¹⁹Public Safety Canada, ‘Emergency Management’ <http://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/index-eng.aspx>, last accessed 18.11.2013

²⁰Ontario Ministry of Community safety and Correctional Services, ‘Legislation and Regulation’, http://www.emergencymanagementontario.ca/english/insideemo/legislationandregulation/handbook_EMCPA.html, last accessed 18.11.2013

community volunteer organisations in the city) and New York has a 'Private Sector' seat designated to ensure engagement with the private sector during an incident. Straight away, this gives those sectors access to the statutory response agencies and also, gives statutory responder access to the resources and information that the private and voluntary sectors could provide. Additionally, because the IMS and ICS systems are designed to be flexible and applicable, it means that all organisations could be involved as needed and indeed that all organisations (public, private and voluntary) understand the system- no matter which part of the country they are from.

Emergency Preparedness Week

United States and many provinces in Canada hold an 'Emergency Preparedness Week', during which emergency response organisations try to focus their community engagement activities. President Obama has also just announced a whole month of Critical Infrastructure Security and Resilience in November. Because this is done in a coordinated manner and supported at a strategic level, this gives the activities a bit more visibility. For those involved, it also means that if resources are scarce, they can all concentrate efforts together and get a bit more leverage on a joint message than on multiple single organisation activities. San Francisco for example, uses the week for its annual 'Shakeout Exercise' where they try to get as many people as possible to practise earthquake emergency preparedness drills²¹ and to practise activating their NERT (Neighborhood Emergency Response Team) responders. Organisations involved do not necessarily need a larger budget or to do any more activities in the year than they would do normally, however, by doing it at the same time or in coordination with other groups, the message can be bigger and extend to more people.

Funding

In the United States, funding for new projects or even existing programs is scarce at all levels, unless it can be proven 'that they will save money or a "policy window" is created by a major disaster'²². The funding that is available tends to come in the form of reimbursed federal grants. Once a grant for a specific program has been won, the expenditure is heavily documented and scrutinized. As a result, many emergency management organizations employ a significant proportion of staff just to manage the writing of grant applications and other required grant management duties, such as grant project proposal competition, selection and reimbursement documentation processes.

One example of a very large pool of funding is the Homeland Security Grant Program²³ (with a 2013 budget of nearly \$1.5 billion) which includes funding for:

²¹Shake Out- Earthquake Drills. <http://www.shakeout.org/>

²²William L. Waugh, Jr., (2010) *Public Administration and Emergency Management*, FEMA Training Course. Available online: <http://training.fema.gov/EMIWeb/edu/paem.asp>, last accessed 08.11.2013

²³H.R. 933 - Consolidated and Further Continuing Appropriations Act 2013" (PDF). 2013-01-03. pp.161–163.<http://www.gpo.gov/fdsys/pkg/BILLS-113hr933enr/pdf/BILLS-113hr933enr.pdf>. Retrieved 21.11.2013

Urban Areas Security Initiative (UASI) (\$500.4 million), State Homeland Security Program (HSPS) (\$346.6 million), Operation Stonegarden (\$46.6 million), Training, Exercises, and Assistance (\$235.2 million), and \$188.9 million for the Metropolitan Medical Response System Program, Citizen Corps, Over-the-Road Bus Security Assistance, The Metropolitan Medical Response System, The Driver's License Security Grants Program, The Interoperable Emergency Communications Grant Program, Emergency Operations Centers, The Buffer Zone Protection Program Grants, and the Regional Catastrophic Preparedness Grants.

In 2013, where most states received under \$10m for their State Home Security Program under HSGP, California and New York were the only two states to receive over \$50m (\$52m and \$66.5m respectively). In addition, the Bay Area received an additional \$27m and New York a staggering \$174m for their respective UASI²⁴. Funding is therefore available, but only for those that have the right risk profile in the mind of the Department of Homeland Security.

Another source of funding mentioned several times both in the United States and Canada are philanthropic organisations such as the United Way²⁵. What this seemed to mean is that for those organisations that are organised and efficient at grant writing, access to funds is not a problem. However, smaller organisations that lack capacity to bid for or subsequently to manage such a grant, may find it hard to secure funding.

A further knock-on effect is that programme specific funding may require the organisation to do something specific in a given time frame, such as provide training to a specified audience or for the purchase of a particular asset. This suits the needs of the funding organisation rather than the needs of the community. It also tends to be time bound for a period of years- which makes it difficult to plan over a longer period of time or to undertake ongoing activities- which are more suited to community resilience.

Unfortunately in Canada, deficit reduction measures taken in 2012 have led to the cancellation of the Joint Emergency Preparedness Program (JEPP) and the closure of the national emergency management college²⁶, leaving many emergency response organisations frustrated and concerned about their ability to support other areas through mutual aid in the future. There is now no federal money to support emergency management activities.

²⁴ DHS.FY 2013 Homeland Security Grant Program Factsheet. Available at http://www.fema.gov/media-library-data/8d0439562c89644a68954505a49cbc77/FY_2013_Homeland+Security+Grant+Program_Fact_Sheet_Final.pdf, retrieved 21.11.2013

²⁵ United Way website: <http://www.unitedway.org>

²⁶ <http://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/mrgnc-prprdnss/mrgnc-mngmnt-trnng-eng.aspx> and Cohen, T., (2012) *Stakeholders cry foul as feds cut funding for emergency preparedness*, Available online, last accessed 21.11.2013 <http://www.canada.com/news/Stakeholders+foul+feds+funding+emergency+preparedness/6814690/story.html>

Although in some cases huge budgets are less important for community engagement than passion, enthusiasm, a champion and commitment from community members, community resilience activities do need some kind of funding to be able to work at the most basic level. Whether that funding goes towards providing simple refreshments during training, buying a generator for a potential community reception centre or supplying volunteers with basic equipment- some kind of funding is absolutely necessary and it would be naive to think that this is not the case. It was clear that those cities with bigger budgets were able to look beyond the standard emergency management approach to community resilience and to find new and innovative ways of engaging meaningfully with their communities (case studies are given later on).

Insurance

In the US, the national flood insurance program (NFIP) is federally funded and was intended to be a way for homeowners to take out protection against flooding, which is otherwise not available through the private sector. Unfortunately it appears that this has reinforced and incentivised risky behaviour in both individuals and communities, living in or near flood risk areas.

Robin Whyte from CARRI gave the example of Des Moines in Iowa, a city which has a history of flooding. She reported that residents were content to live in a flood risk area, because they have had their houses rebuilt on more than one occasion at the expense of the federal government. As a result of these concerns, US Congress agreed in 2012 to reform the NFIP Act. Changes include rates that reflect true flood risk, making the program more financially stable, and changes to how Flood Insurance Rate Map (FIRM) updates impact policyholders. It is anticipated that most policy holders will be required to pay more for their cover²⁷ and that the steps taken will discourage persistent poor behaviour and reduce the payouts. This should improve the resilience of that community in the long run, but there have been criticisms that a market-based pricing policy would disproportionately target poor populations who in some cities traditionally lived nearer to flood risk.

One of the problems experienced in the UK is that individuals taking part in community activities in preparation for or response to an emergency- eg. community flood protection groups in Cornwall doing mitigation activities like clearing ditches- are difficult to insure. I was pleased therefore to hear that in Victoria, Vancouver Island, the city's Municipal Insurance Act provides basic death and dismemberment insurance for volunteers engaged in specific activities relating to emergency response. They are able to add additional volunteers to the policy at a nominal rate, but the cover only covers specific activities. They have had difficulty getting cycle volunteers and urban search and rescue volunteers covered by the policy.

²⁷ FEMA, 'National Flood Insurance Program' Available online at <http://www.fema.gov/national-flood-insurance-program>, retrieved on 23.11.2013

5. Motivation for getting involved

The majority of community resilience activities involve people from that community getting involved with something, be that in the mitigation, preparation, response or recovery phase of an emergency. Throughout my travels, it was clear there were many different reasons for people to give their time and efforts in preparation or in response to emergencies. I thought it was important to set out what some of these reasons are, because many of the activities in the 'standard' community emergency plan approach tend to be focussed on people getting involved because they are being told to do so, or because they are scared of something happening. Perhaps new and innovative ways of getting people involved in community resilience activities could target a different motivation:

Community culture

This motivation stems from the person seeing volunteering as a civic or community duty that they partake in because they think that everyone should volunteer, in order to be a worthwhile member of their community. This is a prevalent mindset in both the United States and Canada.

There is a strong history of volunteerism and philanthropy in the United States, which permeates through everything, including emergency planning and response. When I asked where funding came from for a number of projects I encountered, this was evident, as a number were entirely funded by grants from organisations such as United Way.

Again in the United States, there is a big reliance on the voluntary sector, not only in emergencies, but also on a day to day basis, they are often contracted in or asked to provide care and assistance. This means that they are already embedded in their communities to provide support.

Community spirit

Some people are motivated by the simple fact that they want to help their neighbours, because they are a helpful person- not because they are looking for personal gain, to satisfy someone else or because they think it is expected of them. I saw examples of this in Oak Bay, Victoria, where the average age of volunteers is approximately 60 and some of the volunteers are 80 years old.

Fun

It sounds simple, but some people get involved in volunteering to respond to emergencies just because it is enjoyable- taking part in training and exercising, or getting to meet new people. There are examples of this type of person in nearly every voluntary group, but the CERT and NERT teams across the United States, or the Blue Coat volunteers in Vancouver, struck me as particularly relevant.

To gain or share skills

Some people want to share their skills with other people, whilst others want to learn new skills that may be applicable elsewhere in their lives. This could be learning to use a handheld radio or learning how to influence the local decision making mechanisms in the municipality.

Cause

Sometimes it is clear that because of a sense of injustice or imbalance of power there is an issue that a person or group wants to do something about- people getting together for a specific cause. From my experience, it seemed that much of the volunteer sector in the United States is based on this cause-related approach, perhaps more so than the UK, where of course the same thing happens, but perhaps not to the same extent.

Corporate social responsibility

Many companies are keen to be seen socially responsible entities; as such they may encourage their staff to get involved with a local cause or will sponsor specific events that will enhance their image. An example that I came across was PG&E the San Franciscan utilities company which is funding the American Red Cross' Ready Neighbourhoods programme, which earlier this year won the FEMA Community Preparedness Award.

In fact many members of staff working for companies in the Silicone Valley (Google, Facebook, Twitter, AirBnB etc.) live in San Francisco and commute out of the city to go to work. These companies seem to have a very strong sense of corporate social responsibility and encourage their staff to take part. In addition, because of the innovative nature of their work, in recent months, several actions have encouraged community resilience- some of these are known as the 'share economy'. When Sandy struck New York in 2012, AirBnB (an online room sharing platform, normally used for people on holiday) opened a free service for New Yorkers to offer their rooms out to people who had been displaced. Around 1400²⁸AirBnB users hosted guests for free and organised community food halls for those in need. The company has now developed a ready to go page for future incidents that can be launched in 30 minutes, because "the amazing outpouring of generosity from our community inspired us to build this tool...we now have the infrastructure in place to help at a moment's notice."²⁹

The benefit of being in an urban environment is that there is no shortage of companies about who could be encouraged to do more.

²⁸Video available <http://www.youtube.com/watch?v=LJgRwdIGyRs>

²⁹Smith, R. (2013) *San Francisco's Mayor Lee Launches Sharing Economy Partnership for Disaster Response*, Published 12.06.2013. Available online: <http://www.shareable.net/blog/san-francisco-mayor-launches-sharing-economy-partnership-for-disaster-response#.UccRm-4SHbl.twitter>, retrieved 24.11.2013

Fear or Threat

Some people will get involved because they can perceive a very real threat to their way of living. New York, San Francisco and Vancouver for example, are all at high risk of being struck by an earthquake or storm surges. In theory, this should make it easier for the local authorities to get their communities engaged with preparation, or at least for providing a back drop to emergency preparedness messages.

In Victoria, Vancouver Island, there is a volunteer Urban Search and Rescue team that has been set up because they have identified a real risk, that if there is an earthquake in Victoria, there is every possibility that infrastructure damage will prevent one of the few USAR teams on the mainland from getting to them quickly. Victoria is perceived by some of the people that I met as not having a 'Culture of Preparedness', but this looks like it is changing, with the recent earthquake in its sister city, Christchurch in New Zealand. Several people that I met had been over to visit and were very influenced by the effect of the earthquake on a city that visually, could easily be Victoria (the cities are almost architectural twins).

Personal experience of an emergency

Others are motivated by having been in an emergency themselves and wanting to help others in the future. I saw countless examples of this whilst in New York, both as a response to Hurricane Sandy and to a lesser degree 9/11. In San Francisco, the Loma Prieta earthquake was still in living memory, so provided a credible threat to use as a back drop for emergency preparedness messages.

Requirement

Many universities require their students to demonstrate that they are a rounded individual by showing that they can do more than just study. In addition, many of them encourage their students to make a connection with the local community by volunteering nearby.

Members of staff working for the municipality in San Francisco and New York for example are mandated and receive training to help with the response to a city emergency. All New York city staff have a clause in their contract that requires them to respond to say, open a reception centre, if this is needed. This is not so much a voluntary motivation, but equally they are not necessarily used to being part of an emergency response in their day job.

There are many reasons why people get involved in volunteer activities, whether they are directly related to emergencies or not. The relevance of this in regards to community resilience is that any programme that seeks to build community resilience needs engagement from the community first and they need to want to get involved. So in order to get people involved, the activity must tap into some of those motivations. It cannot just rely on the will of an organisation, such as a local authority seeing a problem and wanting to solve it.

6. Engaging with different sectors

Flynn and Burke point out ‘Building resilience is not possible without substantial collaboration and cooperation at all levels of a society’³⁰. The following section discusses how emergency management engage with the different sectors of their communities and how this affects community resilience.

Public education and information

Nearly all of the emergency management organisations that I visited had some form of public education programme (indeed those in Canada are mandated to) and the main focus across both countries was to encourage people to be self-sufficient for 72 hours. In addition, some cities have mass messaging systems to alert their communities about emergencies.

Most organisations produced volumes of emergency preparedness literature and it was interesting to see and hear about the range of audiences and themes that they spoke to. The information provided is much broader than just emergency preparedness messages about power cuts and floods– it included guidance about public health, every day community safety and also specialist advice for specific communities (China Town residents in San Francisco; pet owners) or demographics (such as the elderly or people with disabilities). Calendars were quite a popular method of reaching local communities- some gave new preparedness tips for each month linked to hazards common at that time of year and others use the calendar as a 12 step way to prepare a family emergency plan.

- **Zombies, Bees and Games**

Children were particularly well catered for in emergency preparedness education programmes. Amongst the efforts that I saw, Catherine Blair deserves particular note for her Buzz the Preparedness Bee and zombie initiatives and her neighbouring city, Brampton for their emergency preparedness board games.

When I spent the day with Catherine in Mississauga, a city just West of Toronto, I was amazed how much one person could do with so little budget. Most of the time Catherine is a one man band, with help from the occasional student for a month here or there, which is not a lot of personnel considering there are just over 500,000 inhabitants.

Buzz the Preparedness Bee and Wee Bee, promote emergency preparedness and safety messages to children – they even have a dedicated Buzz website and branding, with video tips, interactive games online and live appearances at local schools and children’s events³¹.

Emergency Preparedness Camp is for teens age 14 to 17, based around the theme of a zombie apocalypse. The non-residential camp give the teens an opportunity to work on emergency

³⁰ Flynn and Burke, (2011) *Brittle Infrastructure, Community Resilience and National Security*, TR News 275, July- August 2011, Pages 4-11

³¹ Buzz the Bee and Wee-Bee’s interactive game: <http://www5.mississauga.ca/buzzthebee/>

preparedness activities, have fun working with ‘zombies’, and developing leadership, teamwork, problem solving, and communication skills, but with an emergency planning theme. All of the training is supplied for free by local emergency response organisations and the week culminates in a Zombie Escape Exercise on the Friday³².

- Ready NYC



Figure 2: My host in New York with her hurricane booklet

Although I was not the biggest fan of the UK’s Preparing for Emergencies leaflet produced in 2004, sent to every household in the country, I was very pleased to see Ready New York’s hurricane surge zone map and comprehensive booklet, sent to every property in surge zones on the map.

This was just one example of the countless messages New Yorkers receive about emergencies on an almost constant

basis. The Ready New York is a very strong brand with a distinctive look. Messages are persistent and multi-channelled. Through the Ready New York website for

example you can:

- Request an event speaker or trainer to educate your organisation about emergencies.
- Public service advertisements – for TV, radio, outdoor, print, and digital PSAs which take a humorous approach to emphasize the importance for parents to involve their children in the preparedness process.
- Take the Ready New Yorker quiz.
- Request emergency preparedness guides in 23 languages.
- Download a Ready New York calendar.
- Take the Readiness Challenge.
- Watch a Ready New York video.

What is very obvious is that the branding is consistent and persistent across New York. This consistency is lacking in London which is fragmented by 33 different local authorities, each with their own approach.



Figure 3: Bus stop advertising

³²Mississauga Emergency Management webpage, retrieved on 12.11.2013
<http://www.mississauga.ca/portal/residents/emergencymanagement>

- **Notify NYC and national notification system**

Notify NYC³³, New York's notification system has over 140,000 subscribers. They have a dedicated emergency notification office operating out of the Office of Emergency Management and constantly monitor emergency activity in New York City and the metropolitan area. Registration offers five notifications types:

- Emergency Alerts
- Significant Event Notifications
- Public Health Notifications
- Public School Closing/Delay Advisories
- Unscheduled Parking Rules Suspensions

Messages can be sent as texts, automated voice messages or emails. As a subscriber, you can subscribe to five different post codes, so could include your work place, home and child's school.

The national alerts system goes even further in that it does not require you to sign up. Federal and participating local emergency management organisations can send text messages out to all phones within range of a specific mobile mast. It will override ALL settings except the phone being turned off. So even if you are a visitor, the message would be pushed out to your phone. The only catch is that it works on very new phones only, as the technology is very new. The service is used for major emergencies and missing persons' reports. Articles in the UK media in September suggested that the UK is testing similar technology³⁴. A lesson from the time that I was in New York was that people get very angry if they are woken up by missing persons reports at 3am and that this could lead them to disable the function if they know how to. Messages need to be carefully worded and appropriately timed.

- **SF72**

San Francisco's Department of Emergency Management (SFDEM) is trying to build relationships, in a variety of ways with their communities. These days, many people's preferred networks are spread out geographically, so you either have to harness those existing links and understand how to bring them closer together in times of duress, and/or build more local networks in communities. Their capstone project is SF72, a new suite of resources for San Francisco's communities- as they strive to get away from messages of fear and lists of 'supplies'.

The current www.72hours.org website is a very traditional look at emergency preparedness, based around messages of fear. The directive is very top down and it is implied (but never stated) that if

³³ Notify NYC Webpage: <http://www.ncy.gov/notifynyc>

³⁴ Miller, J. (2013), *Mobile phone emergency alert system to be tested in UK*, Published 16.08.2013. BBC Website: <http://www.bbc.co.uk/news/technology-24113790>

you don't prepare now, you might die. The main driver until now has been a call to arms to San Franciscans to be prepared because of the 70% likelihood of a magnitude 7 earthquake in the next 30 years (everyone has a slightly different percentage and number of years, give or take). Rob Dudgeon, Deputy Director of the DEM thinks that pushing this kind of message is the wrong way to go about it, because people either consider it too far in the future to be a concern or have a fatalistic view about the event being so big that it is pointless trying to do anything about it.

The Bay Area generally is very tech savvy, so SFDEM wanted to crowd source preparedness. Not least because it's those local technology firms that will need to be back up and running as soon as possible after a disaster (with staff at work- not rebuilding homes), in order to bolster the post incident economy. A human-centred design company called IDEO researched what makes some emergency messages work and others fail, as well as how to tap into the serendipity that happens after disasters to bring people closer together and how to encourage this beforehand. Alicia Johnson talked me through the new solutions as a result of the research. Under development are:

1. A mobile app for smart phones, which has value in your everyday life with traffic updates, reminders and the like- but can then be used to push out messages in times of emergency.
2. sf72.org is the new website, which is being completely redesigned in terms of what it looks like visually- as well as the content being much more of an emotional ploy.
3. Redefining community emergency preparedness education so that it is fun for those taking it and also engaging and fun to teach. They want to communicate more with affinity groups, who have a stake in the community and who can act as a trusted source of information in an emergency. The new version will focus on smaller emergencies, looking at say, what to do if there was a fire in your building, where would you go, what would you do.

SF72 also dives into the sharing economy mindset; beyond stockpiling supplies, getting through a disaster successfully is "about knowing your neighbors, lending a hand, and sharing your knowledge."³⁵

Volunteers, voluntary organisations and the faith sector

- VOAD

In the US, voluntary organisations, such as the American Red Cross and the Salvation Army, are classed as primary response and recovery agencies. Government agencies often contract with such organisations to provide disaster services. The National Volunteer Organizations Active in Disaster

³⁵Smith, R. (2013) *San Francisco's Mayor Lee Launches Sharing Economy Partnership for Disaster Response*, Published 12.06.2013. Available online:

<http://www.shareable.net/blog/san-francisco-mayor-launches-sharing-economy-partnership-for-disaster-response#.UccRm-4SHbl.twitter>, retrieved 24.11.2013

(NVOAD) was formed to provide a vehicle to coordinate the planning of disaster responses and to minimize duplications of effort. VOADs fulfill a similar role at the state level.

Underlying and underpinning the inclusion of the voluntary sector in the United States is the VOAD (Voluntary Agencies Active in Disaster) structure. Julie Blanciak from FEMA and the National VOAD describe VOAD as a movement, since inception in 1970³⁶. The National VOAD is a non-profit, non-partisan, membership based organization that serves the whole country. It is made up of around 110 national volunteer agencies, such as the American Red Cross, Salvation Army and Southern Baptists who come together to share knowledge and resources throughout the disaster cycle.

At national level, some agencies have specialised in being able to provide a specific service- shelter, case management, logistics, warehousing, children's services etc and as a result are fully integrated in emergency response. Most states also have a State VOAD and since the terrorist attacks of 9/11, it has been increasingly common to see City VOADs or COADs (Community Organisations Active in Disaster) at a local level. Julie Blanciak from FEMA is certain that emergency management could not be successful without the voluntary sector, in particular the VOAD structure, because it helps to provide a robust mechanism for getting the voluntary sector engaged in a meaningful way and for ensuring a level of understanding from other agencies about what the voluntary sector are able to provide.

- Faith Sector

In the United States, religious organisations are an increasingly important provider of social services. This is mostly as a result of the 'Charitable Choice' element of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), which encourages 'states and counties to increase the participation of non-profit organizations in the provision of federally funded welfare programs, with specific mention of faith-based organizations'³⁷. It is reported that an amazing 90% of faith organisations are involved in this work.³⁸

Because they are intrinsically linked with the community at a very local level, and are equally well placed to liaise with federal and city agencies, they are well placed to serve those communities before, during or after an emergency. At a local level, faith organisations are engaged in creating their own emergency plans for their communities. Stephen Harding from the Episcopal Church is responsible for trying to encourage all parishes in New York flood zones to have an evacuation plan (from 199 parishes). Although the main driver for emergency planning has been the response and recovery from Hurricane Sandy, he is also keen to develop plans that can also deal with local flooding, fires, tornadoes and even earthquakes. He is hopeful that more of a structure to respond at

³⁶National VOAD homepage: <http://nvoad.org/about>, last accessed on 11th Nov 2013.

³⁷Cnaan et al. (2002) *Charitable Choice and Faith-Based Welfare: A Call for Social Work* Social Work, Volume 47, Issue 3, 2002, pages 224-235.

³⁸Bottan, Nicolas Luis and Perez Truglia, Ricardo, *The Role of Religious Congregations in the Provision of Social Services in the U.S.* (July 1, 2013). Available at SSRN: <http://ssrn.com/abstract=1922950> or <http://dx.doi.org/10.2139/ssrn.1922950>

a local level will be in place in the future, as there was little structure in place during Hurricane Sandy.

Many faith organisations are increasingly banding together to form local collaborations that support emergency response. An example of this is the largest of its kind- NYDIS (New York Disaster Interfaith Services), with an annual budget of \$8.5M. Peter Gudaitis from the National Disaster Interfaith Network (NDIN) and New York Disaster Interfaith Service (NYDIS) sees religious leaders as the first line of communication with communities. He sees these leaders as trusted partners in the community, with an authoritative voice and are able to share critical information with their communities, more quickly than some traditional routes. He was particularly sure of this where recent immigrants are concerned, as they may not have the language skills, connections or cultural understanding that your average citizen could be expected to have.

At a regional or national level, many faith organisations also have an emergency response capability and many of them specialise in a specific area so that they compliment and do not duplicate the work of other faith organisations. The Mennonites have two teams who work from a dining trailer, an office trailer and a training/ bunkhouse trailer; the Southern Baptists have dozens of 18 wheel trucks with expandable walls, that are capable of serving 20,000 meals a day and smaller trucks that can serve a 'mere' 500 meals a day; the Church of the Brethren focus on children's ministry; the Christian Reform Church on assessments; even the Church of Scientology has an emergency response capacity.

- **Americorps, FEMACorps, CitizenCorps, CERT/ NERT and CERV**

Americorps was designed as a domestic service version of the Peace Corps, with national service volunteers signing up for a 10 month rotation in a US location. It comes under the control of the Corporation of National and Community Services (CNCS) and FEMA can mission assign them as federal assets to undertake disaster response activities- typically feeding, sheltering and warehousing. CNCS and FEMA have now collaborated further to form FEMACorps, specifically designed to deploy in support of FEMA operations.

Citizen Corps is a state and local initiative to involve everyone in building a culture of preparedness. In the US every emergency management office should have some form of citizen corps program to encourage household emergency planning. Most of them choose the CERT model.

Community Emergency Response Teams³⁹ (CERT) are part of FEMA's national programme to educate members of the public about disasters and how they can be prepared. They receive training about local hazards and basic response skills, such as fire safety, light search and rescue and first aid. There are around 2200 registered CERT teams in the United States and training is extended to a variety of

³⁹FEMA, *About Community Emergency Response Team*, <http://www.fema.gov/community-emergency-response-teams/about-community-emergency-response-team>, retrieved 13.11.2013

groups including specific neighborhood groups, businesses, critical infrastructure sectors (e.g., utilities, public transportation), government groups, faith-based organizations, teens / youth, colleges / universities, people with disabilities and military groups⁴⁰. San Francisco have a NERT program (Neighborhood Emergency Response Team) which even has a section specifically for the over 65s.

The City of Brampton, just outside Toronto in Canada also has a similar group called CERV (Community Emergency Response Volunteers), with around 150 members. Although coordination of the CERV is an ongoing activity, most of the work was done in the initial stages when the programme was being set up- so they do not consider these ongoing costs to be substantial- just one member of staff part time and \$10,000 budget. Much of the training is done by local emergency response organisations- so the fire department provide fire safety training, the ambulance service provides first aid, utilities provide training about power cuts and water loss etc.

Many people I spoke to were advocates of this kind of model, as it is a push towards a community emergency response mindset and also encourages the ‘professionals’ to include the community in their plans. What I found somewhat strange (considering how forward thinking and innovative the San Franciscans are) is that once trained, the NERT members were only expected to participate in one annual earthquake drill a year. They were permanently on standby and had only been used once to deliver drinking water to an island community in the Bay Area. It is perhaps a missed opportunity that they are not used in special events, like the Blue Coats below, to hone their skills and to keep up their ongoing interest.

- **Vancouver Blue Coats**

Volunteers are a key element of the Vancouver management of emergencies. Notably, there is the Vancouver Volunteer Corps who provide volunteering across the City. They aim to have around 1000 general volunteers, who receive basic training and are more about having people trained and aware of what they can do to help in an emergency. Then the next level up are the Emergency Social Services (ESS) volunteers, of which there are around 300, who are more actively engaged in the response to an emergency (providing food, shelter, clothing etc). In addition, the fire brigade have just started a program for NEAT (Neighbourhood Emergency Assistance Team) volunteers, who could help the fire brigade with things like door knocking and moving supplies.

NEAT and ESS volunteers are tied into the city’s emergency plans and as such can be tasked. The general volunteers also do things on a regular basis to keep them engaged and prepared, and this is something that London could perhaps adopt.

The idea emerged from the Winter Olympics held in Vancouver, where many people came forward to act as stewards. The city then wanted to keep these ‘Bluecoats’ on afterwards because they proved

⁴⁰Saint Charles County CERT Program. <https://www.citizen corps.gov/cc/showCert.do?id=43249>

so useful and freed up other resources such as police officers to do more traditional policing activities. In essence, the general volunteers do smart things in their neighbourhoods, and they are used for public safety and as ambassadors at large events. They are regularly seen on major streets during public events, providing information and helping with basic crowd control and are often moved to transport hubs as the event is closing to help guide people away from the area. This has been a great success and feeds directly into the safety planning for large city events, but crucially, these are all people who could be utilised in an emergency.

Could London use the Gamesmakers from the Olympics to help steward future public events held in the capital? This could also be a consideration for other cities hosting large events in the near future- e.g. Glasgow (hosting the Commonwealth Games in 2014) or Toronto (Pan-Am Games in 2015). Doing so reduces the policing efforts needed to steward the event and away from giving people directions or pointing out the closest public conveniences for example. It also means that an equipped cadre of trained and engaged volunteers are available for future unforeseen events.

- **Emergent Volunteerism and Donations Management**

As we saw in London during the 'public disorder' of 2011 (who can forget Broom Army in Clapham Junction), and has been evident in all large emergencies (and probably to a smaller and less well documented degree in smaller emergencies)- people will come forward during emergencies to do good things. What's more, preventing or discouraging this from happening can disengage communities who feel like they are discouraged from being part of the solution. What is not present so much in the UK, specifically in London is a common understanding of how to deal with unsolicited volunteers and donations. Incorporating potentially unknown individuals into emergency response and recovery can be seen to create a logistical strain on limited resources- most emergency managers would prefer to deal only with affiliated volunteers, such as Red Cross or Salvation Army volunteers, because they are already trained and are being managed by another organisation.

In the United States, state and local governments are encouraged to 'establish a structure responsible for receiving, tasking, and employing the full range of goods and services that may be donated during an emergency'⁴¹. This is normally done in coordination with existing voluntary and faith organisations, through the VOAD structure.

An example of how this works at local level, can be seen in the San Francisco Bay Area Urban Area Security Initiative (UASI). Following the 1989 Loma Prieta earthquake, volunteers flooded in from outside the area. Volunteer management became something that was not a choice- it had to be done. Kelle Rimmel, an expert in the field of volunteer and donations management has developed the Emergency Volunteer Centre Program, which helps communities to develop plans to manage spontaneous volunteers. At the core of this plan is the Emergency Volunteer Centre- a centralised

⁴¹FEMA, (2008), *Volunteer and Donations Management Support Annex*. Available at <http://www.fema.gov/pdf/emergency/nrf/nrf-support-vol.pdf>

clearing house which serves as a location where volunteers can be assessed for skills and assigned specific tasks. Kelle has developed an Emergency Volunteer Centre resource kit- a quick start pack, which contains everything needed to set up this kind of centre. This was developed because of the difficulty posed by trying to keep a group of staff or volunteers permanently trained to undertake the task of managing this kind of centre. The pack has been road tested blind with a group of Rotary Club volunteers, and they were able to set up to receive volunteers within 15 minutes of being given the pack.

- SF CARD

SF CARD (San Francisco Community Agencies Responding to Disaster)⁴² was set up in 1989 as a result of the Loma Prieta earthquake. They work with the leaders of human service providers, non-profit organisations that typically provide shelter, feeding and mental health services, to train them in how to work together in an emergency. Typically they work with around 50-80 non-profit organisations a year. These organisations can receive assistance with training staff, emergency management training, exercise writing and drills as well as technical advice.

What seemed to work well is that relationship building develops over a number of years and is flexible to suit the needs of the organisation that they are working with. The organisations pay nothing towards costs, all of which are reclaimed through the grant process.

In addition to the support to the organisations themselves, SF CARD also acts as liaison between the city emergency management staff and those organisations. In the event of an emergency, SF CARD would normally be the first choice at the Emergency Operations Centre to represent and coordinate with the voluntary sector. This is all achieved with minimal funding, a staff of three and two volunteers.

Private Sector

Providing business continuity advice on websites and in seminars with local businesses was standard across all cities I visited. Unsurprisingly, again, New York is leading the way with private sector integration into emergency response and this tends to go under the banner of 'public-private' initiatives- which is a very collaborative and inclusive term, which indicates two equal partners working together.

First of all, as well as operating a resident focused messaging service, New York also has a **CorpNet service** which is aimed at communicating with businesses. Secondly, their **Corporate Emergency Access System (CEAS)** accredits certain members of staff to shut down or sustain core elements of

⁴²San Francisco Community Organisations Active in Disaster, website: <http://sfcard.org/>

business if area access is restricted, until normal entry into the building is resumed⁴³. CAES has been around since 2004, to facilitate:

- Gain emergency access to your business when access is restricted
- Rescue vaulted assets, such as cash, checks, receipts, and certificates
- Retrieve vital records, such as contracts, invoices, customer records, insurance documents, tax records, and licenses
- Shut down technology systems
- Retrieve critical equipment, such as laptops and servers

Third on the list is the **Private Asset and Logistics Management System (PALMS)** — a registry of private sector resources, which ties into the idea that an urban area has many resources and having an understanding of what these are, is key to using the whole community in the emergency management cycle. This enhances the existing CALMS (a similar registry of city assets). Businesses can list their assets which could be made available to the city in an emergency:

- Facilities- e.g. warehouses and phone banks,
- Equipment- e.g. refrigerated trucks and office trailers,
- Personnel with special skills- e.g. foreign language speakers and licensed engineers.

Finally the city has operated a **Partners in Preparation** scheme since 2011, which encourages businesses to undertake a suite of activities and demonstrate a certain level of commitment to preparedness activities.

Many cities (including New York and San Francisco) in the United States have BOMA⁴⁴ groups (Business Owners and Managers Association) who have a strong alliance with the emergency management office, helping facilitate a two way flow of communication between the public and private sector. In many ways this is like the **Cross-sector Safety and Security Communications**⁴⁵ group set up in advance of the Olympics and still continuing today in London- there are over 20 different industry sub-sectors, each with an Industry Sector Lead.

Further and higher education institutions

Universities and further education establishments are typically located in urban areas and in some cases actually are their own urban areas because of their sheer size. No more so is that true than in North America, where they often have their own police forces and huge campuses. In places like

⁴³ New York OEM, 'For Businesses' web pages: <http://www.nyc.gov/html/oem/html/businesses/businesses.shtml>

⁴⁴ San Francisco Business Owners and Managers Association, 'Emergency Preparedness Committee', web pages: http://www.bomasf.org/committee_view.php?name=Emerg%20Prepare

⁴⁵ Cross-sector Safety and Security Communications, <http://www.vocal.co.uk/cssc/how-to-get-involved/>

Boston, the city population swells by a noticeable degree during term time. Universities are getting involved in community resilience activities a variety of different ways.

Royal Roads University in Victoria, Vancouver Island is one of only a few universities in Canada to offer an Emergency Management degree. They encourage their students to undertake practical emergency management activities of use to emergency management organisations because it is of use to both parties. Cindy Heslop from View Royal in Victoria for example used Royal Roads university students to undertake an assessment of whether they met the ten criteria of the UNISDR 'Making Cities Resilient' campaign. There is no need to limit the application of critical minds to emergency management issues to just emergency management students, Dorit Mason from the Vancouver North Shore Emergency Management Office (NSEMO) for example regularly invites students from other academic subjects such as town planning or engineering to solve emergency management issues in her municipality.

Use of students in a mutually beneficial partnership is nothing new and is used to a certain degree in UK university cities (e.g. Coventry University has a very strong link with Coventry Council), but this tends to be focused on students of emergency management. In London there are over 40 universities and higher education colleges with around 400,000 students. Only a small proportion of these offer emergency related courses (UCL has a Disaster Risk Reduction institution and Kingston University to name two), but can there be more to engage these critical minds to be engaged more effectively to solve local emergency management issues?

Another community building activity with less of an emergency related focus is general volunteering. In the US, students are often required or at least actively encouraged to undertake voluntary work in their community, sometimes in order to gain credits for their course. This forges local ties with the community and I found an example when I spoke to the Neighborhood Empowerment Network (NEN) in San Francisco where students (with skills) were linked up with local residents who needed to use their skills or wanted to learn from them.

A more extreme version of the power of the student body has come from Canterbury, New Zealand, where a deadly earthquake struck in 2011. The University of Christchurch's **Student Volunteer Army**⁴⁶ and **Social Innovation**⁴⁷, an independent community development agency, recognised that because of the earthquake classes at university were cancelled, and so a huge pool of human resources was available to help the response. Together they helped organise and mobilise over 26,000 volunteers over six weeks in Christchurch's February 22, 2011 earthquake. Is this something we could emulate in London?

⁴⁶Student Volunteer Army website: <http://sva.org.nz/>

⁴⁷Social Innovation website: www.socialinnovation.org.nz

I was sadly unable to meet with the principal of the **Urban Assembly School of Emergency Management** whilst I was there, as they were getting ready for their first term- but what they are trying to do is very impressive. The UASEM is a public Career and Technical Education high school which aims to 'prepare students to engage in complex quantitative and qualitative reasoning skills with an understanding of the principles of Emergency Management.' They have partnerships and take advice from local emergency management and response agencies ensure the school integrates the skills, competencies and standards of the emergency management industry theme into curriculum, school culture, enrichment activities, work-based learning programs, and post-secondary advisement. Not only that, but the school's students are encouraged to be READY (Resilient, Empathetic, Achievement Oriented, Deliberate, Your Own Ally).

7. Outside the box

On my travels I met with a great many people and heard about some fantastic activities taking place which intentionally or not, I thought were very innovative ways of taking on the community resilience challenge- especially in an urban context and often stem from unlikely causes (none of which were emergency planning in the traditional sense). Here are some of their stories.

Joplin, Missouri

A practical example of resilient communities comes from Joplin, Missouri- where a deadly tornado struck in May 2011. Within 84 days of the tornado hitting on Graduation Day in 2011, all children were able to go back to school, despite 10 of the 19 school buildings having been destroyed and 161 people killed. CJ Huff, Joplin Schools' Superintendent, claims resilience was what carried the community through the recovery period, but that it 'does not happen by accident- it starts first and foremost by this - developing relationships'⁴⁸. Joplin, it seems, was very good at doing just that- not because they had concentrated on being emergency responders, but rather they had begun to help each other in everyday life.

The town developed the *Bright Futures- Connections for Success* programme to address high levels of school drop-outs. They found practical solutions to the varied problems that lead students to not being able to participate in school, and quickly- within 48 hours. Solutions were found using traditional support networks but also via a dedicated Facebook page. What was designed to reduce school drop-out rates- and did so successfully by 50%- meant that the town had a natural way to support each other and a readymade system for finding local solutions when the tornado struck. Again, they were used to working together, had a structure for doing so and knew where their resources were.

San Francisco's Sharing Economy

In June 2013, San Francisco's mayor announced collaboration between the Department of Emergency Management and BayShare⁴⁹, whose mission is to make the Bay Area the best place on the planet for sharing⁵⁰. They want to use the power of sharing in response to future disasters in San Francisco. This will come in the form of Lyft⁵¹ drivers using their cars to transport response personnel- this is especially useful as many of the city's emergency responders live outside city limits- and Yerdle⁵², which could help people provide basic supplies to those in need at a local level,

⁴⁸ See CJ Huff: *Resilience in the aftermath of the unthinkable*. http://poptech.org/people/cj_huff and http://poptech.org/popcasts/cj_huff_resilience_in_the_aftermath_of_the_unthinkable

⁴⁹ Bay Share website: www.bayshare.org

⁵⁰ See full article: <http://www.shareable.net/blog/san-francisco-mayor-launches-sharing-economy-partnership-for-disaster-response#.UccRm-4SHbl.twitter> or <http://www.sfmayor.org/index.aspx?recordid=333&page=941>

⁵¹ A popular life sharing website used in the Bay Area- see <http://www.lyft.me/>

⁵² A recycling and reusing website, like the UK's Free-Cycle <https://www.yerdle.com/>

and AirBnB⁵³ enabling hosts to provide free accommodation to displaced people. On Patrick Meier's blog, he discusses share economy and building community social capacity in a disaster scenario. He and other readers have suggested:

- **FON**, which allows people to piggy back off other wifi networks, if they share theirs.
- **LendingClub**, which offers cheap savings and lending- which could be vital access to liquidity in a disaster.
- **LiquidSpace**, which is a bit like AirBnB but for office or desk space, which can be rented by the hour or day. This is crucial if you are evacuated temporarily from your work space, but is sadly only available in the US so far.
- **RelayRides**, which allows users to lend their car out to other drivers.
- **Task Rabbit** and **Zaarly**, which allow you to get trusted neighbours to do small tasks and errands for you or discover local services.
- **Store it Squirrel**, which is like Airbnb, but for storage.

Empowering Neighbourhoods

An excellent concept being developed in San Francisco is the Neighborhood Empowerment Network (NEN)⁵⁴, which brings people together from a given neighbourhood, to empower them to find solutions to address a local issue. The NEN is a collaborative comprised of community organizations, city agencies, non-profit organizations, and academic institutions, sponsored by the San Francisco General Services Agency and the Department of Emergency Management.

The community themselves identify what the issue is- it could be a lack of employment in the area, saving a local school from closure or a lack of cohesion between two groups of people (such as residents and the university)- and it is the neighbourhood group themselves who decide who should be encouraged to attend. Once the group has honed in on a local issue that they want to address, they come up with their own plan to do something about it. If an emergency occurs, the group already has a trusted presence in an organized capacity with an understanding of their own strengths and weaknesses and is used to solving their own problems; the epitome of community resilience.

The job of the NEN is to facilitate the work of the group and to make sure the right people are at the table. For example: if the problem is to do with utilities failures in the area, they will make sure the local utilities provider is part of the discussion. This ensures that the community group has access to the right actors who have the power to change something – without this targeted approach, the group would have a cause but no actual recourse to the power to change.

⁵³ AirBnB Website: <https://www.airbnb.com>

⁵⁴ Neighborhood Empowerment Network website: <http://empowers.org>

LGBT Communities

One community that is relatively underrepresented in academic research or emergency management programmes is the LGBT community. Marcilyn Cianfarani from Toronto is researching how the LGBT community is affected by disasters as little is known (even worldwide) about the impact on the community during and after disasters. She looked at their needs, vulnerabilities and capabilities in order to find out what risk reduction initiatives could be done to support the community.

The main thing that came out of the research was that the LGBT community already has a lot of capabilities sometimes lacking in other communities. They are grass roots community groups which exist formally and informally. They have the capacity mobilise themselves in a non-traditional way and do not necessarily need as much formal help as other groups. Because of the response to previous emergencies, such as HIV, LGBT groups are used to fighting issues at community level, being self-organising and advocating for others. This is precisely the kind of resilience that is looked for in other communities.

8. Conclusion

The following section provides a number of recommendations, thoughts and suggestions, that have emerged from my Fellowship and which are primarily directed at local responders. Regional emergency planners and national government may also be interested where regional or national support is required to facilitate local level action.

Recommendations

So your organisation has decided they want to engage in community resilience. How should you go about actually doing it? These questions should provoke answers to guide you through and may trigger a lot of thoughts about community resilience involving more than just emergency planners.

- Work out first what your local hazards are – not just tidal surges, pandemic flu, severe weather etc listed in your local or borough risk register- these are too ‘emergency’ focused. **What are the really local issues** that are likely to keep your population up at night and are your community resilience activities focussed around the motivational factors that will work for your communities?
 - who is looking after my elderly parents?
 - crime- do I feel safe in my neighbourhood? Will my business be burgled?
 - What do housing benefits cuts and the total benefit cap mean to me?
 - What happens if I lose my job?
 - increasing fuel costs? Can I afford to pay to heat my home?

If you can get your communities to address some of these local issues together, then they will be better placed to deal with larger emergencies.

- What are **your local strengths and weaknesses**? How can you take advantage of the former and limit the latter?
 - Did you recently host the world’s biggest party, using loads of wonderful volunteers? Can you use them again in other large events?
 - Companies based in your area- do they have a CSR policy you could collaborate on?
 - Do you have any universities or colleges in your area? Are you engaged with them? Can they support resilience mapping activities or research projects? Are students encouraged to be a part of the community outside university buildings.
 - Is there a social media hub in use every day that could be adjusted for use in emergencies?
 - Do you already have a strong culture of volunteering in your communities? Or community groups used to campaigning? Do you have a ready-made local champion?

- What are **your local assets**? Could there be a registry of assets (people, facilities, equipment) that local businesses or organisations could add to?
- **Invest in a public education programme** if possible- extend emergency planning and preparedness knowledge beyond just the responders. A priority would be for children and communities that could be more vulnerable during emergencies. Because this can be time consuming (and some emergency managers/planners are working on their own, so have very little time or resources to be meet every one of their residents!), see which other council departments have a vested interest in safety (e.g. community safety, public health, schools, health and safety etc) and other statutory responders (who are often trying to do public education as well) or local organisations can get involved in planning and delivery of the event(s). Make it truly multi-agency- not just Category One and Two responders and break down the silos.
- Consider how you can **engage with local voluntary groups** active in your area to understand which ones could be brought in to provide assistance in an emergency. Could you set up a COAD (Community Organisations Active in Disaster) type group in your local area? Keep it local: at Local Resilience Forum level, the voluntary sector will already be engaged- but this tends to only be the larger organisations and faiths. So consider how your local voluntary organisations could provide assistance and whether you are missing an opportunity to bring them into discussions. Do you invite them to your Borough Resilience Forum (for those in London)? Do you know how they interact and support each other on a day to day basis?
- **Can you really reach all your communities** or do you rely on rigid warning and informing mechanisms- like putting messages on your website or using mass messaging systems. How many people are you realistically able to reach? Who are your community connectors⁵⁵? Are there a small number of really well connected and trusted individuals or groups who can help spread the word? Are the connectors the same in mitigation, preparation, response and recovery phases- or are different connectors good at information sharing at different times? Are your messages just trying to scare people, or will they really elicit a response. Consider developing your warning and informing.

The next points are aimed mostly at London regional planners, but could be of use in any regional or large metropolitan area where there are both single and multiple organisation structures (e.g. multiple boroughs vs. single fire brigade/ police service). Some emergency management work is best undertaken at this level to ensure consistency overall. I would encourage consideration of the following questions and themes:

⁵⁵ Gladwell, (2000), *The Tipping Point: How Little Things Can Make A Small Difference*, Little Brown and Company, Boston.

- **Warning and informing**- why should a resident or business in borough A be getting a different message to borough B. Is there room for a London-wide warning and informing strategy, which is branded as such and has consistent messages with clear themes and branding? Can London Prepared be beefed up?
- **Share economy**- has there been any research into the kinds of social media tools that are in use in the city and which could be partnered with. Use of social media in emergencies has tended to be limited to understanding what information is available on Twitter and Facebook.
- **Registry of assets**- this could be a local or regional registry?
- **Voluntary sector engagement**- Is London making full use of the voluntary sector- not just those typically involved in emergency response activities (British Red Cross, Salvation Army), but is there a real understanding of what support others could provide in an emergency? Are we doing enough to ensure that those traditional organisations are supported to continue their work?
- Lastly, are **enough resources** (both staff and financial) available at regional level to support regional work, or is there an over-reliance on local staff collaborating across multiple boroughs?

Finally at national level there are some considerations for supporting a more resilient community culture in the UK. Most of that is probably not even related to activities specific to emergencies- most of it would just be under the heading of building communities and a lot of work is already being done by other parts of government at local, regional and national level. However here are a couple of suggestions:

- In the UK there is a Business Continuity Awareness Week- although it is not a national event it has national support (is promoted nationally by the Business Continuity Institute). Is there merit in having a **national emergency preparedness week**?
- Although the UK does not have a standardised incident management system or unified response, there is a command structure in place (bronze, silver, gold etc). What is lacking in this is any kind of **formal place for engagement with the private, voluntary and faith sectors** in an emergency, that can be replicated nationally. It is accepted that this will take place on an informal level and this informal relationship has even developed formally in some areas (e.g. the business - but this is not a nationally understood model that can be taught to others outside the Category One and Two Responders, to ensure that there is a common understanding of where they link in to the 'system'.
- Is there enough being done to **harness the community spirit and enthusiasm** (all the good stuff) that we felt last year during the Olympics and Jubilee? Can this be tied into the above preparedness week or events like 'The Big Eat' or street parties?

Thoughts

Here are my final thoughts on community resilience in urban areas. I hope that in some ways these (and the questions above) can facilitate a wider discussion about what community resilience could look like in the UK and if possible provide some steps to get there.

- Getting hung up on definitions gets you nowhere and getting hung up on measuring resilience is almost as futile as there is no one way to measure community resilience- all potential ways of measuring are subjective and at best indicative. Surveying social capacity in the community is more likely to give a better indication of how well the community will work together in an emergency.
- Community resilience activities do not just have to be about 'preparing for emergencies' – they can be anything with a social capacity building element and they can take place at any time during prevention, mitigation, preparation, response or recovery.
- Being resilient involves all emergency management phases, it is not just getting over the first hour or 72 hours.
- There is no one size fits all solution or golden bullet. Building trust and connections takes time and effort.
- Building the social capacity that is needed in times of emergency, does not need to be a result of only emergency related training or planning initiatives. An activity that builds social capacity can be entirely unrelated to emergencies and still build networks that are useful in an emergency. This should not be the only activity though- emergency preparedness education is still needed.
- Cities are inherently no less resilient than rural communities- they are just organised in a different manner. Resilience building activities should take advantage of the assets (socially, physically and in social media) that exist in cities.
- In the context of Community Resilience, London is very lucky to be divided into 33 local authorities, because this means that broadly, each geographic community has a group of councillors and local authority staff looking after their interests and a budget specifically to do so. In other larger cities (such as Toronto or New York) this local level attention is lost.
- Volunteers and donations will emerge spontaneously at emergencies. Having a plan for how to deal with them takes advantage of the skills and resources they bring in and reduces the negative impact of not managing them in a coordinated way.
- **Never underestimate the power of a party in bringing people together.**

Appendix A: Methodology and Organisations Visited

Research methods

I used a qualitative semi-structured interview technique to collect data for this report. Most interviews were either one on one or in small groups of two or three people. Although I had a number of questions in mind for consistency, I allowed conversation to flow, as guided by the respondent answers. I followed up interviews by collecting data about a number of projects or papers available online, as per recommendations from participants.

Organisations and Meetings

Although I was based around the four cities- New York, San Francisco, Vancouver and Toronto- I was able to use these as staging posts for visits to other urban areas close by.

New York

Stephen Goldfinch, Maria Hasan	UNISDR – Office of Disaster Risk Reduction, UN Making Cities Resilient
Peter Gudaitis, Michelle Johnson	New York Disaster Interfaith Service, NYDIS and National Disaster Interfaith Network, NDIN
Nick Halstead, Lolita Jackson and Daynan Crull	New York City Special Initiative for Rebuilding and Resiliency
Herman Schaffer	New York City Office of Emergency Management
Darrell Hayes, Stephen Harding	Episcopal Diocese of New York
Katie Mears	Episcopal Relief and Development
Julie Blanciak	FEMA Region II
Vrunda Vaghela	American Red Cross

Boston

Steve Flynn	Northeastern University, Center for Resilience Studies
Eric McNulty	Harvard University, National Preparedness Leadership Initiative
Adam Wehrenberg	New England Regional Catastrophic Preparedness Initiative

San Francisco Bay Area

Andrea Jorgensen	NERT (Neighbourhood Emergency Response Team)
Troy Sanders and Irina Chatsova	SAFE, San Francisco (Safety Awareness for Everyone)
Daniel Homsey and Kristin Barrera	San Francisco Neighborhood Empowerment Network, NEN, Empowered Communities Program

Rob Dudgeon, Alicia Johnson and Bijan Karimi	San Francisco Department of Emergency Management
Warren Edwards, Robin White and team	CARRI- Community and Regional Resilience Institute
Janell Myhre, Craig Dziedzic and Catherine Spaulding	Bay Area UASI (Urban Area Security Initiative)
Kelle Remmel	Kelle Remmel Consulting
Peter Ohtaki and Jim Turner	California Resiliency Alliance
Chief Greg Suhr and Deputy Chief Mike Biel	San Francisco Police Department
Brian Whitlow	San Francisco CARD (Community Agencies Responding to Disaster)
Randy Brawley, Kelly Hudson and Angela Nak	FEMA Region IX

Vancouver and Victoria, Vancouver Island

Daniel Stevens	City of Vancouver Office of Emergency Management
Dorit Mason	Vancouver North Shore Emergency Management Office
Robert Johns	Victoria Emergency Management Agency
Cindy Heslop	View Royal Emergency Program
Eileen Grant, Dave Cockle and Tom Pearse	District of Oak Bay Emergency Program
Daphne Donaldson	University of Victoria
Ian Elliot	Capital Region District

Toronto and Region of Peel (Brampton and Mississauga)

Catherine Blair	Mississauga Office of Emergency Management
Andrew Cooper and Kathryn Lockyer	Peel Region Emergency Prepared (PREP)
Alain Normand and Rick Bernard	Brampton Office of Emergency Management
Adam McAllister	Emergency Management, Ontario Ministry of Natural Resources
Loretta Chandler	Toronto Office of Emergency Management
Nina Diaz and Jude Kelly	Emergency Management Ontario
Gerry Flahive	1000th Tower Project
Daniel Hoornweg	University of Ontario, Institute of Technology

Appendix B: Acronyms

ARC	American Red Cross
BOMA	Business Owners and Managers Association
CARD	Community Agencies Responding to Disaster
CARRI	Community and Regional Resilience Institute
CEAS	Corporate Emergency Access System
CERT	Community Emergency Response Team
CNCS	Corporation of National and Community Services
COAD	Community Organizations Active in Disaster
DEM	Department of Emergency Management
EOC	Emergency Operations Centre
EHS	Emergency Human Services
ESS	Emergency Social Services
FEMA	Federal Emergency Management Agency
HSGP	Homeland Security Grant Program
ICS	Incident Command System
IMS	Incident Management System
JEPP	Joint Emergency Preparedness Funding
NDIN	National Disaster Interfaith Network
NEAT	Neighborhood Emergency Assistance Team
NEN	San Francisco Neighborhood Empowerment Network,
NERT	Neighbourhood Emergency Response Team
NFIP	National Flood Insurance Program
NIMS	National Incident Management System (USA)
NPLI	National Preparedness Leadership Initiative at Harvard University
NSEMO	Vancouver North Shore Emergency Management Office
NYDIS	New York Disaster Interfaith Service
OEM	Office of Emergency Management
PALMS	Private Assets and Logistics Management System
PSEPC	Public Safety and Emergency Preparedness Canada
PREP	Peel Region Emergency Prepared
PRWORA	Personal Responsibility and Work Opportunity Reconciliation Act
RCPI	New England Regional Catastrophic Preparedness Initiative
SAFE	Safety Awareness for Everyone, San Francisco
SFDEM	San Francisco Department of Emergency Management
SIRR	New York City Special Initiative for Rebuilding and Resiliency
UASI	Urban Area Security Initiative
UNISDR	UN Office of Disaster Risk Reduction
USAR	Urban Search and Rescue
VOAD	Voluntary Organizations Active in Disaster