



# **Responsible Humans: Identifying community leaders and building sustainable resilience organizations**

Jarrold Coburn

June 2009

*Supporting paper presented at the*



Toronto, Canada 2009

## ***Introduction***

This article was written to support a presentation to the World Conference in Disaster Management 2009 (Toronto, Canada). In it there is presented a method to rediscover the forgotten tool of Community Place Identity, polish it up, and put it to good use by reducing the vulnerability to a raft of threats and hazards that communities face.

Preparation of this paper has involved hours of reading and research. The more one reads the more one realises how little one knows about the many aspects talked about herein. But there is knowledge and there is also intuition. Good practitioners should be able to balance the two – because to achieve anything of substance one must be constantly making (good) decisions off the cuff.

This article introduces some of the contemporary research literature around community resilience. There are many concepts and ideas that are borrowed and not acknowledged – and for that, apologies are profusely offered: sometimes it is hard to recall where the germ of an idea springs from. But the important thing to remember whilst reading this document is that ***this is a philosophy that has been put to work*** in a little place called Newlands, New Zealand.



*Attendees on an introductory preparedness and resilience course, 2008*

## **Part One: A definition of community**

*Key concepts:* community, place identity, sense of place, weak links, keystones

*Key references:* Prohansky, *et al.* (1983); Palonen *et al.* (1999)

### **The place we live in**

In their 1983 publication Prohansky and colleagues used the term “Place Identity” to describe a location or area that has meaning to a person or people. When the term ‘community’ is used in this article it means something similar: an area with defined boundaries that has a special significance to the people who live there.

New Zealanders like to believe they are well-known for our friendliness; however this is a value that seems to be important to people everywhere. If one considers New Zealand as a community (albeit on a very large scale) then this is an example of a value that contributes to the sense of place we –as New Zealanders – have about our community. If you asked an Australian or Canadian you would no-doubt hear them say that they are well-known for their friendliness too. In other words the geographic boundary might be the only real difference between communities when examining them from an external perspective, but because of their place identity the individuals living there feel it is special and unique.

This feeling is a powerful tool that – in New Zealand at least – seems to have lost its potency over the last two generations. Like a disused and ignored shovel left out in the rain, it has slowly rusted and become forgotten.

### **The forgotten tool**

As a child I grew up in a semi-rural area of New Zealand and I recall a different way of life. People seemed to be at home more, neighbours interacted in ways more complex than just a simple nod to each other over the fence. We walked or biked to school or took the bus; to be driven to school was a luxury reserved for when someone special in your family died. The pace of life seemed slower, everyone appeared to have time to savour their relationships with other people.

What has happened in those intervening three decades? I know I am not alone in this observation because whenever I voice it people start nodding their heads vigorously. Then they start shaking their heads in sadness. When did we start losing our sense of place, our sense of community?

The important question is not when, nor how, but why. Why have communities fallen apart in New Zealand? I don't have the answer to such a complex issue, but here are a few suggestions made to me by members of my community:

- 1) The nature of work. Despite the increase of technology and automation people seem to be working harder and longer these days, leaving little time in people's lives spare;
- 2) The pursuit of wealth. ‘Things’ have become a prominent part of our lives, at the expense of the more human values. Material wealth has increasingly become a measure of success, making us focus more on ‘what’ we have rather than ‘who’ we are;
- 3) The disposable society. Back when I was young there might be one person in the street who had a chainsaw. If you needed a tree branch trimmed, or some firewood

cut up, you would know that person well enough to ask to borrow it. They would probably come to your house and cut the wood for you as well! Products nowadays are mass produced, cheap, and disposable. Why ask your neighbour, when you can buy a new chainsaw at the corner shop for \$25?

## Neighbourhood glue

Along my path of discovery I've come across two fantastic terms: 'weak links' and 'keystones'.

We all know the saying about a chain being only as strong as its weakest link. Communities are chains of smaller social clusters and the individuals who link clusters together are the weakest links of that chain. These individuals bind several clusters together, and the community as a whole is therefore as strong as those 'weak link' individuals. Researchers from the University of Helsinki in 1999 identified that 'weak links' play a key role in information transmission within a knowledge-based system<sup>1</sup>.

One could argue when considering social capital that communities fit in this broad arena. In my experience Weak Links are people who commit a lot of time to the betterment of the community and are involved in multiple organisations or groups such as residents' associations, schools or churches. They are born networkers and are a wealth of knowledge about the goings-on of their community.

Keystone individuals are also good networkers, but their real skill is leadership. These people are normally well-known and highly-regarded by people in their communities, working tirelessly to support fundraising activities, churning out newsletters, advocating on behalf of the silent majority.

Keystones have close ties with those they work with and are focused on specific outcomes while Weak Links have loose ties with many diverse people and are focused on a wider perspective.

The two types form a bond that holds both the social clusters and the community as a whole together.

The implications of this will be discussed later.



---

<sup>1</sup> Palonen *et al.* (1999)

## **Part Two: Resilience vs. vulnerability**

*Key concepts:* community resilience, resilience, vulnerability, emergent property

*Key references:* Norris *et al.* (2008); Coburn (2008); Finnis (2004)

### **We don't know what we don't know**

I used to regard resilience as only about 'bouncing back' until I read a paper by US researcher Fran Norris and colleagues<sup>2</sup>. They presented a theoretical framework of community resilience that resonated with my colleagues and I. Something they wrote has helped us explain the concept of community resilience to hundreds of people ever since: that resilience is the opposite of *vulnerability*.

There are many definitions of resilience but Norris *et al.*'s approach makes a lot of sense. They propose that a community will only discover its level of resilience when adversity strikes. At this point the community will either soldier forward, or lie down and wither under the stress. This concept of an emergent property is important because it means the resilience of a community cannot be measured in advance of a disaster. The model they propose does not allow for us to say "this is a resilient community". But we can identify those attributes that contribute to resilience.

In an earlier work I proposed that for resilience to exist there must be the right environment, the right tools in place, the right behaviours, all working in synchronicity<sup>3</sup>. After speaking with many community leaders and professionals I felt confident to identify some attributes of resilience. These were:

- strong and clear communication between many groups;
- a feeling of safety and security;
- respect for one-another, and for one's environment;
- neighbours trusting neighbours;
- no petty crime, and no tolerance of petty crime;
- a large degree of self-awareness;
- self-reliance; a willingness to develop and draw-on resources within the community;
- confidence;
- the ability to react rationally to adversity (orderly, no panic, no hysterics);
- pride and a strong sense of place;
- active participants in democracy;
- a well-understood common vision.

Norris *et al.*'s framework is much simpler and – while focused solely on disaster management (the NZRT considers emergency management as only part of community resilience) – it provides an effective mechanism to plan research and projects.

---

<sup>2</sup> Norris *et al.* (2008)

<sup>3</sup> Coburn (2008)

The Norris Model considers four “networked resources” (attributes), which together determine the level of community resilience. Nonetheless, each of these four attributes is clearly defined and measurable, and our team has already started work identifying methodologies to help gain a better understanding of resilience at the community level.

## **Irrational behaviour**

Does it make sense to bury our heads in our pillows when we are told our house is on fire? Of course not. In a situation of grave threat we have an ability to immediately deal with it or escape.

In medical terms this is called the “fight or flight” mechanism, and it is one of the human body’s most basic responses to a stressful situation. But what if people started ignoring that uneasy feeling they get when faced with a hazardous situation? I suppose we all learn to suppress it at a young age; indeed many people experience that feeling in everyday life through the medium of horror movies, extreme sports, or simply teaching their child to drive.

One of the biggest frustrations we face as practitioners is the blank stares we receive when telling people they need to become better prepared. Kirsten Finnis, a New Zealand researcher, wrote a report commissioned by our government in 2004 in which she examined “empirically supported barriers to action”, “predictors of preparedness”, and sought to understand what type of communication/content motivates preparedness. Finnis found that preparedness is closely linked to community resilience and the role of the State doesn’t exclude involvement by communities. Finnis went on to list seven primary barriers to preparedness:

- risk perception – “That event is never going to happen”;
- optimistic Bias – “It’s never going to happen to me”;
- response efficacy – “I don’t have the time/money/skill to prepare”;
- outcome expectancy – “No amount of preparedness will help”;
- normalization bias – “We have earthquakes all the time, and I survive those”;
- external locus of control – “Disasters are an Act of God”;
- transfer of responsibility – “Civil Defence will be there to help me”.

These attitudes are a way people deal with consequences too horrible to comprehend. Disasters by their very nature are overwhelming and uncontrollable. When faced with such a prospect it is perfectly understandable for people to feel helpless and threatened. Public broadcasting messages, slogans, or shiny brochures are relatively ineffective at achieving preparedness. Many people already have a sense of the fragility of life and do not appreciate being reminded of that fact, especially if they can’t do anything about it!

The real issue is what leads people into a state of denial, and I propose that a major cause is a sense of futility. There is already so much to worry about in life than a potential disaster, so preparedness goes to the bottom of the list. The excuses merely exist to explain away the irrationality of that behaviour.

## Knowledge is power

Members of the trust have worked hard to develop a community education course that sets out to educate and empower residents and the outcomes to date are positive. People have reacted well to our approach, which hinges on two important parts:

1) Tell the truth – people don't want to be treated like children, they want to understand what they are up against. We have found that by laying out the facts to them they become concerned and engaged. When I say 'facts' I mean the local and regional risks and hazards, level of preparedness, realistic expectations of support post-disaster, and expected recovery timelines<sup>†</sup>. People get nervous hearing such harsh realities but they also become open to hearing solutions;

2) Provide the tools to make a difference – it is no good telling people they are facing a disaster without arming them with tools to help themselves and others. Those tools have to be understandable, accessible and free. Because water is such an important resource and so scarce in Wellington city we teach people how to safely and easily store water from a tap. It is a simple skill to learn and many people are amazed that they don't have to buy bottled water!



Even though we encourage people to be prepared for a factor of ten times more than the New

Zealand government recommends we have an incredibly high success rate. By arming individuals with tools to help themselves they not only become more prepared, many also take the lead to help their friends, families, and neighbours.

---

<sup>†</sup> We tell our course participants that the biggest threat for Wellingtonians is a lack of potable water for several weeks following a major earthquake. The city has only one entrance by land so recovery efforts will be challenging. The city's infrastructure is extremely vulnerable, criss-crossing fault lines and spanning a variegated topography.

## **Part Three: Attributes of resilience**

*Key concepts:* networked resources, attributes of resilience, equity, social capital, information flow, skills & competence

*Key references:* Norris *et al.* (2008), Finnis (2004), Colten *et al.* (2008), Lewis *et al.* (2009), Mills (2005)

### **Explaining the theory**

The theoretical model by Fran Norris and colleagues identifies four “networked resources” that contribute to an outcome of resilience for a community that is struck by a “transient dysfunction” (such as a natural disaster). I choose to describe these as Equity, Social Capital, Information Flow and Skills & Competence.

### **Equity**

There is a link between the amount and distribution of economic resources and post-disaster wellness. The danger in an inequitable environment is that certain people with influence or authority have better access to resources than others. A resilient community is one that shares its resources equally in an egalitarian fashion – the aim is for everyone to survive, this means an attitude of co-operation and not competition must be implicit in the community’s culture.

The NZRT have developed a desktop simulation called ‘the Game’, in which participants in our community education courses learn to co-operate with one another to survive. There is evidence that this exercise has changed the attitudes and beliefs of people who previously thought it better to hoard their resources in a disaster rather than share them.



Equity is – in my opinion – one of the more challenging attributes of resilience. Developing equity in advance of an adverse event has attitudinal as well as economic dimensions. Self-awareness

and understanding of the stratified socio-economic demographics within a community could go some way to instigate attitudinal change. This would need to be the result of careful research.

Encouraging the support of local businesses, practising sustainability, and utilising concepts such as social entrepreneurship could also contribute to boosting the equity of a community. New Zealand cities and large towns are divided into smaller communities based on geography (suburbs). Perhaps an opportunity exists for suburbs to regard themselves as ‘micro-macroeconomies’: measuring inputs and outputs to gain a better understanding of their economic strengths, weaknesses, and opportunities. It could be argued that a community that is united will utilise resources with greater efficiency than one that is divided.

## **Social Capital**

Social capital is the number and quality of networks that a person has, and the quality of resources they can access using those networks. Building social capital requires locals to engage “meaningfully in every step of the...process”. Kirsten Finnis wrote that “partnerships with governments, organisations, local businesses, community groups etc, are needed to make community development programmes work” – this cannot be done solely by government. Whilst some have criticised the US Government for failing to work with emergent organisations immediately after Hurricane Katrina, contributing to the misery of survivors<sup>4</sup>, although there is evidence moves were made to remedy this oversight by the time Hurricane Gustav struck, through pro-active efforts by community-based organisations and a receptive attitude by lead agencies<sup>5</sup>.

There is ample evidence highlighting the power of individuals to create positive change when they convene for that purpose. I strongly support the approach that individuals in communities should take the lead and develop social capital for themselves, thus contributing to potential community resilience.

## **Information Flow**

The development of credible and useful means of communicating that operate “in the face of unknowns” is an important adaptive resource according to Norris et al. Slick marketing is not enough – communities must be involved in the process – and the effort must be ongoing. Those in the ‘know’ need to have their voices heard but this isn’t limited to experts only: there is a lot of wisdom and knowledge within communities. The vulnerable, too, need to have their say and this communication must happen in a safe environment.

## **Skills & Competence**

Risk awareness and the ability to problem-solve cohesively and innovatively is key to this emergent concept of community resilience. Mobilisation requires an environment that is permissive to this behaviour: an honest approach, ability to come together, support for all community members to contribute, and ‘safety’ are important.

One could take the position that the over-arching ‘risk’ faced in disaster management is that of a population unable to help themselves or others. Psychological preparedness education is a useful tool to reduce anxiety and it has been shown elsewhere that when people have an understanding of how their mind works – such as through a Health Revitalization education programme – they are better able to change their attitude and thus behaviour<sup>6</sup>. Using preparedness education – ostensibly to reduce anxiety about the threat of adversity – that provides honest information and useful tools could be a useful starting point for further engagement with residents.

---

<sup>4</sup> Colten, *et al.* (2008)

<sup>5</sup> Lewis, *et al.* (2009)

<sup>6</sup> Mills (2005)

## **Part Four: Seizing a unique opportunity**

*Key concepts:* change, volunteering, non-profit sector, community resilience, leadership

*Key references:* Hagan *et al.* (2008), Norris *et al.* (2008)

### **The stirring giant**

The past six months have been tumultuous for many. I am sad that so many people place absolute faith in a way of life that represents instant gratification at the expense of long-term security. However there is a silver lining in the dark financial cloud currently enveloping the world: people are starting to re-engage with community values.

The environment has been ripe for communities to adopt a pro-active attitude for a number of years and the New Zealand Resilience Trust was established with impeccable timing. In New Zealand a number of groups have sprung up to help usher in this new age of community participation. The Transition Towns movement is one such group<sup>§</sup>. Others focus on sustainability, social innovation, and climate change. I believe we are witnessing the final gasp of the traditional volunteer and philanthropic sector, being replaced by a new wave of community-based action groups and individuals with a renewed sense of purpose.

This change has been on the cards for almost a decade. New Zealand has been agonising over the death of its non-profit sector for many years. “We can’t get enough volunteers” is the haunting cry from respectable and worthy organisations. Yet volunteering numbers have been at their highest ever recently. People have changed their focus away from the old and are looking ahead to what the future might bring, and those who do not adapt to the new ways of engaging with their community will eventually die off with their ageing membership.

This is good news for some, bad news for others. We are still in the throes of a tumultuous period and it is hard to predict what the situation will be once everything settles down. But one thing is for certain: the masses are stirring, and they are hungry for change.

### **Creating resilient communities**

Leadership within communities is the most-efficacious and least-utilised resource practitioners have to build community resilience. Last year researchers at Australia’s Defence Science and Technology Organisation<sup>7</sup> published research on public behaviour during a pandemic. They reflected on the importance of social validation and authority in influencing people’s compliance to recommended courses of action.

Authority traditionally comes from respect, trust and being well-known. Social validation comes from people’s observation of the behaviour of others in their community, and this is especially true in times of stress. Most of us who have experienced earthquakes will cringe at this – but I will be the first to admit that I look around a room when a quake hits to see if anyone else is getting under their desk! Many ‘follow the pack’ but who does the pack follow? This is why leadership is essential when we seek to inspire and motivate a community.

I mentioned earlier the concept of Keystones and Weak Links, two types of people who glue a neighbourhood or community together. When the Weak Links of a community

---

<sup>§</sup> [www.transitiontowns.org.nz](http://www.transitiontowns.org.nz)

<sup>7</sup> Hagan *et al.* (2008)

come together with the Keystones there can be a powerful synergy that is capable of forging great social change. The combination of leadership and reach provides a breadth and depth to any resilience-building project that social marketing cannot.

During my time with the New Zealand Resilience Trust we have focused on building macro networks throughout the country and establishing ways to identify and mentor community leaders. This is a process that takes time and patience; it is an organic process that must grow naturally because the relationships are built on trust and integrity. But we are already starting to see the fruits of our labours through increased numbers of loose networks, spontaneous projects, and community participation.

## **Practical steps to engage communities**

In conclusion I offer these seven steps to engaging with the awesome potential of a community and in doing so starting the process of resilience-building:

- 1) Know your community. Know it well. Don't read about its demographics or take for granted what a marketing company tells you. Go there; eat, shop, live there if you have to. If not, employ a person who does live there and give them the authority to act on your behalf. You will find it impossible to influence sustainable and healthy change if you are set apart from the community;
- 2) Meet the Weak Links. They are the familiar faces at every meeting. Get to know them well, because they have their fingers on the pulse and they are great conduits for two-way information flow;
- 3) Befriend and consult the Keystones. These people are the true authority in any community and you will not get far without their overt support. If these important individuals don't know who you are then they cannot give you support when members of the community ask about your plans. The Keystones are your best friends and potentially your worst enemies. You will recognise them – they are the ones always popping up in the newspaper, at local government meetings, at public fora making a noise. They do that because they care;
- 4) Respect the local culture. If you are an 'outsider' then take the time to understand the 'vibe' of the community. What are the important issues? What is the history? Even the most basic knowledge of the community will serve you well – it shows you are interested and engaged and not simply there to do a job and leave again;
- 5) Attend meetings. As many as you can. Church meetings, school meetings, sporting club meetings and especially meetings of residents' associations. Sit and listen, don't be tempted to talk. If asked, be humble: you may think you know everything about emergency management but you would be surprised at the experience and knowledge that sits in some of the smallest community halls;
- 6) Engagement tools: research, education, training, networking, projects. They work for us and they will work for you;
- 7) Finally, when you have got things moving, never EVER attend an important community meeting without knowing what the outcome will be. By that time you should be connected enough to get a consensus amongst the Keystones in the community – they are the ones who will speak for the majority. If you pave the way with that minority then you are guaranteed to get the majority of the community alongside you.

A community can build strength through the actions of its individual parts. Community resilience is a reflection of the strength of a community, the resources available to it, and

ability to mobilise quickly<sup>8</sup>. Economic, social, informational, and competency factors combine to produce a community that emerges resilient in the event of disaster.

Developing resilience cannot be the responsibility of governments alone – communities must act to improve their lot. Yet government must hear the voices of those with knowledge and recognise those who want to be involved and be open to partnerships of honesty, trust, and true equality if community resilience is to prosper.

## Practical application – Civil Resilience

The New Zealand Resilience Trust has developed a model for citizen-community engagement to provide a vehicle for people to grasp the oft-complex concepts around resilience. We call this model 'Civil Resilience' (CR) and have developed a brand, strategy documents, and templates to enable us to deliver it to New Zealand communities.

The basic tenet of CR is 'Citizens Serving the Community'. The model is based on volunteerism with two important caveats:

- 1) Any member of the community is welcome to become involved – no matter what their ability, experience, or background they are welcome to participate<sup>‡</sup>;
- 2) Volunteers only have to commit to one event per year; even if it's just the community Christmas party.

The focus of CR is developing and sustaining a network of people in a community who have a communal approach to disaster mitigation and response, but can participate at any level they choose. It is a loose-network versus structured-hierarchy approach and this fits with the way people are choosing to engage as community volunteers nowadays.



### Civil Resilience in action

When the Lions Club needed volunteers to help with traffic control for the 2008 Johnsonville Parade, the NZRT was able to offer several volunteers pre-equipped with identity cards and hi-vis uniforms. In addition the Trust developed a risk management and emergency plan, liaised with medical and fire emergency services, and provided first aid for the event which attracted 25,000 people.

<sup>8</sup> Norris *et al.* (2008)

<sup>‡</sup> This introduces some risk to the model (such as criminal behaviour, disability, etc.) however where most models exclude those not 'suitable' CR attempts to find ways to accommodate those who are genuinely passionate to help their community.

## ***Part Five: Future research directions***

Currently the NZRT is developing a methodology to measure and assess community resilience using the Norris Model. The development of such an instrument could lead to new and vigorous efforts by local and central governments to help communities improve their ability to cope with disaster.

We need to be considering now how best to use such information in a manner that promotes independence and motivation within our communities. The main tool used to-date (it seems) by governments to encourage community preparedness is social marketing, which has dubious effectiveness and is subject to the law of diminishing returns when over-used.

Another aspect to consider is the nature versus nurture argument: we are humans and therefore –technically – all the same. So do we each respond in the same way when offered the ability to determine our own future based on knowledge of risk? Or do we act disparately due to cultural, ethnic, or other ‘learned’ behaviours? One way to discern this might be to conduct identical interviews in small communities across the world.

Locally we have been undertaking interviews with health and wellbeing providers, seeking their perceived role in their community and trying to get an understanding of how such people network within a geographic area. The results so far – from the population of both traditional, western, and complimentary healthcare providers ( $n=15$ ) in Newlands – shows that whilst many providers feel they play an important role in the community, few have formal relationships or even a knowledge of others around them.

Further research, perhaps replicating this qualitative study, could reveal a ‘map’ of the networks across a number of adjoining communities and show trends amongst types of practitioners. Do massage therapists network more than pharmacists for example? What are the professional links between western healthcare practitioners and traditional or complementary health and wellbeing providers?

The research opportunities are endless, and if studies are undertaken with care and forethought they will in themselves contribute to creating social capital and information flow – two important attributes of resilience.

The New Zealand Resilience Trust has a wealth of expertise within its personnel on the subject of community engagement, community resilience and community education, and would welcome opportunities to discuss research partnerships or consultancy roles.

## References

### Part One

Prohansky, H. M., Fabian, A. K., & Kaminoff, R. (1983). *Place-identity*. *Journal of Environmental Psychology*, 3, 57-83.

Palonen, T., Hakkarainen, K., Lehtinen, E., Akkerman, S., Paavola, S., Muukonen, H., & Laine, P. (1999). *Networked expertise and knowledge management*. University of Helsinki Department of Psychology: Finland (unpublished).

### Part Two

Norris, F., Stevens, S., Pfefferbaum, B., Wyche, K., and Pfefferbaum, R., (2008), *Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness*, *American Journal of Community Psychology*, 41, 127–150. Netherlands: Springer.

Coburn, J., (2008), *Building Resilience Communities – Part One: Defining Resilience*, Wellington: NZRT. Available at <http://www.nzrt.org.nz/fromwithin.htm>

Finnis, K. (2004). *Creating a Resilient New Zealand*. Report commissioned by the Ministry of Civil Defence & Emergency Management, Wellington, NZ.. Retrieved March 17, 2009, from [http://www.civildefence.govt.nz/memwebsite.nsf/Files/finnis\\_report\\_final/\\$file/finnis\\_report\\_final.pdf](http://www.civildefence.govt.nz/memwebsite.nsf/Files/finnis_report_final/$file/finnis_report_final.pdf)

### Part Three

Norris, F., Stevens, S., Pfefferbaum, B., Wyche, K., and Pfefferbaum, R., (2008), *Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness*, *American Journal of Community Psychology*, 41, 127–150. Netherlands: Springer.

Finnis, K. (2004). *Creating a Resilient New Zealand*. Report commissioned by the Ministry of Civil Defence & Emergency Management, Wellington, NZ.. Retrieved March 17, 2009, from [http://www.civildefence.govt.nz/memwebsite.nsf/Files/finnis\\_report\\_final/\\$file/finnis\\_report\\_final.pdf](http://www.civildefence.govt.nz/memwebsite.nsf/Files/finnis_report_final/$file/finnis_report_final.pdf)

Colten, R., Kates, W., and Laska, S., (2008), *Three years after Katrina: lessons for community resilience*. *Environment*, 50.5, 36-48. Washington D.C.: Heldref Publications.

Lewis, S., Ignelzi, T., Fogarty, R., (2009), *Using Unaffiliated Volunteers in Disasters – Lessons Learned from Ike, Gustav, Katrina, Floyd, etc. “The good, the bad, & the ugly”*, presented to World Conference on Disaster Management. Toronto: Canada.

Mills, R., (2005), *Sustainable community change: a new paradigm for leadership in community revitalization efforts*, *National Civic Review*, 94(1), 9-17. New York: John Wiley & Sons, Inc.

### Part Four

Hagan, P., Maguire, B., and Bopping, D., (2008), *Public behaviour during a pandemic*, *The Australian Journal of Emergency Management*, 23(3). EMA: Australia.

Norris, F., Stevens, S., Pfefferbaum, B., Wyche, K., and Pfefferbaum, R., (2008), *Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness*, *American Journal of Community Psychology*, 41, 127–150. Netherlands: Springer.