

# **Psychosocial Issues Pertaining to Seniors in Emergencies**

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## Executive Summary

The aim of this paper is to suggest practical strategies to protect and promote psychological and social wellbeing for seniors in the context of emergencies.

Two fundamental issues inform this objective: 1) Who are seniors; and 2) What is unique about psychological and social well being for seniors? Key observations from the Statistics Canada report, *A Portrait of Seniors in Canada* (Turcotte and Shellenberger, 2006), are provided to characterize the current generation of seniors. Three key issues have been selected for discussion from among the many aspects of psychological and social science that are potentially relevant: resilience, social capital and ageism. It is argued that the unique characteristics and needs of seniors must be integrated within personal, communal, and organizational emergency management efforts.

Two psychosocial aspects of personal emergency preparedness that warrant more specific attention with respect to seniors are discussed: optimizing communication and building resiliency. Communal emergency planning must be the primary focus for frail and cognitively impaired older persons. Three contexts in which vulnerable seniors represent the predominant group are highlighted: long term care homes, home care, and end of life care. Two key issues for emergency management organizations to address are identified: combating ageism and providing education and training.

The following strategies are suggested:

- Ensure information is developed and disseminated in ways that are equally accessible to all population subgroups including seniors.
- Learn about the factors that influence the behavioural choices that seniors make in the context of emergencies and disasters.
- Conduct knowledge exchange research and other activities that capitalize on seniors' knowledge and wisdom to develop and communicate emergency preparedness information.
- Embed the concept of resilience within mainstream emergency preparedness documents, pamphlets and brochures.
- Develop a prominent focus on contingency planning and “making do” in personal emergency planning.
- Utilize the knowledge, life experience and wisdom of seniors to better understand and communicate the importance of resilience in emergencies.
- Target the minimization of disturbance, confusion, and unfamiliarity in interventions for frail and cognitively impaired older persons.
- Ensure registries and check in systems for home care clients are up to date and functional.
- Plan for predictable contingencies, such as the identification of frail and cognitively impaired seniors in need of services and the emergence of new disorders and symptoms during the emergency period.

- Determine how to best support the end-of-life care needs of older adults in an emergency situation.
- Acknowledge that exclusion of older adults from national, regional and/or municipal emergency planning exercises it is not a reflection of lack of applicable resources.
- Identify and address the contributing factors, potentially including ageism.
- Develop a succinct curriculum on aging and emergencies for training purposes.

## **Introduction**

As federal, provincial and municipal efforts to enhance emergency management gain momentum, it is important that all aspects of human functioning are included. All four pillars of emergency management (mitigation, preparedness, response and recovery) must include a focus on the protection and promotion of psychological and social wellbeing in addition to other concerns. Fortunately, there is increasing attention to this issue; see, for example, the recently released Interagency Standing Council [IASC] Guidelines on Mental Health and Social Support in Emergency Settings (IASC, 2007). At the same time, it is essential that all segments of the population are included. This is one of the clear “lessons learned” that has emerged through the AARP’s analysis of hurricanes Katrina and Rita (Gibson and Hayunga, 2006). It is estimated that almost three-quarters of those who died in Hurricane Katrina were aged 60 and older. Seniors may be at particular risk depending on the nature of the emergency or disaster and how this intersects with their specific vulnerabilities, needs and capacities (IASC, 2007).

While seniors have heightened vulnerability in emergencies, they are also an untapped resource. Reducing the vulnerability of older adults requires increasing their contributions to, and representation within emergency management. Capitalizing on the resource potential of older adults requires the political and social will to better utilize their skills, knowledge and wisdom (HelpAge International: *Older people in disasters and humanitarian crises: Guidelines for best practice*; Madrid International Plan of Action on Ageing, 2002; Sphere Handbook, 2004).

HelpAge International (2001) has identified ten actions to end age discrimination, one of which is “Include and consult older people in emergency aid and rehabilitation planning after disasters and humanitarian crises”(p.3). Meaningful integration of seniors and seniors’ issues, including psychosocial issues, within all aspects of emergency management is a challenging but critical ambition. Achievement of this ambition will require, among other things, a synthesis among diverse disciplines, including psychology, gerontology and emergency management. This paper is intended to contribute to this synthesis and facilitate the emergence of practical applications of relevant knowledge.

## **Purpose**

The aim of this paper is to suggest strategies to protect and promote psychological and social wellbeing for seniors in the context of emergencies.

## **Issues and Challenges**

Two fundamental issues inform this objective: 1) Who are seniors; and 2) What is unique about psychological and social well being for seniors? While it is beyond the scope of this paper to deal with either of these issues exhaustively, a selection of relevant information is provided to set the stage. Consideration of these issues serves to highlight a variety of challenges; strategies and enablers to meet these challenges are presented in the section that follows.

## *Seniors*

Statistics Canada recently published *A Portrait of Seniors in Canada* (Turcotte and Shellenberger, 2007). This extensive report characterizes the current generation of seniors. Key observations relevant to this discussion are presented. Unless otherwise noted, all data reported in this section is from this report.

Individuals age at varying rates and in varying ways, along different physical, cognitive, psychological, social and cultural trajectories. Thus, seniors constitute the most heterogeneous segment of the population. This is not surprising, considering that when 60 to 65 years of age is taken as the entry point to the rank of “senior”, this subgroup of the population includes people who may differ from one another by three to four decades. In 2003, the life expectancy for a Canadian at birth was about 80 years. Mortality rates are declining for all but the oldest age group (90 years and older). For example, in 2002, for every 1000 people aged 80-84, 64.8 persons died.

There are differences among provinces and territories with respect to the proportion of the population that is comprised of seniors. For example, seniors’ share of the population (aged 65 and older) is 14.8% in Saskatchewan, 12.8% in Ontario and 2.6% in Nunavut. As for all other age groups, the seniors’ population in Canada is increasingly urban. In 2001, seven out of every ten seniors lived in urban centers with at least 50,000 residents. Almost one-third of Canadian seniors live in Toronto, Vancouver or Montreal.

The majority of seniors (93%) live in their own homes. Senior women are much more likely to live alone than senior men, reflecting differences in life expectancy. Among those age 85 and older, 34% live alone. Only seven percent of seniors live in collective dwellings (primarily nursing homes and hospitals). The likelihood of institutional residency increases with age, from 2% among seniors 65 to 74 years of age to 32% among those 85 years of age or older.

In 2005, 85% of seniors under age 75, and 60% of seniors 75 and older reported they had a valid drivers licence. Eighty-nine percent of those under age 75 and 73% of those 75 and older reported that they or someone in their household leased or owned a vehicle.

In general, most seniors are able to carry out daily activities on their own until at least age 75. In 2003, one in ten seniors age 75 or older and living in a private household needed some level of assistance with personal care and one-quarter needed assistance with housework. For those with long term health problems a combination of informal and formal support is common.

Age-related physiological changes do not necessarily result in disease, but many older people have at least one chronic condition. The prevalence of chronic conditions increases with age for seniors. Overall, arthritis or rheumatism is the most frequently reported chronic condition in those age 65 and older (47%), followed by high blood pressure (42.8 %). Cataracts are also common (20.7%). Compared to younger adults, seniors have a lower prevalence of mood disorders (4.2 %) and anxiety disorders (2.9%)

but a higher prevalence of dementia (2%). Cancer and heart disease are the main causes of death for seniors.

Most seniors do not die in their own homes. For example, a population-based cohort study in Ontario, Canada, found that 49.2% of seniors who died over a one year period died in hospital, 30.5% died in a long term care facility, 9.6% died at home with home care services in place and 10.7% died at home without home care services (Motiwala, Croxford, Guerriere and Coyte, 2006).

War Veterans are a notable subset of the Canadian seniors' population. This group includes men and women who served in the Army, Navy, Air Force and Merchant Navy or as Nursing Sisters in World War I (1914-1918), World War II (1939-1945) and/or the Korean War (1950-1953) (Veterans Affairs Canada). As of 2006, an estimated 234,000 of Canada's war service veterans were still alive (Gerontological Advisory Council to Veterans Affairs Canada, 2006).

### ***Psychological and Social Well Being***

Wellbeing means different things to different people. The *National Framework on Aging* (Federal/Provincial/Territorial Ministers Responsible for Seniors, 1998) identifies five core values that are integral to the concept of wellness: dignity, independence, participation, fairness and security. While there are many aspects of psychological and social science that are relevant to the discussion of psychological and social wellbeing for seniors, a few key issues of particular significance are highlighted. These are resilience, social capital and ageism.

#### Resilience

Resiliency is defined in the *Emergency Management Framework for Canada* (Emergency Management Policy Directorate, Public Safety and Emergency Preparedness Canada, 2007) as "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".

Resilience is a product of many intersecting variables, including economic and social resources as well as human factors. At the level of the individual, resilience is generally conceptualized as the process and outcome of adapting to difficult or challenging life experiences, especially those that are highly stressful or traumatic (Bonanno, 2004). Resilience is operative in the relatively common phenomenon of positive change following adversity (Linley and Joseph, 2004), as well as in post-traumatic stress disorder and other mental health conditions that can follow trauma exposure. Much research on resilience has been conducted in a social-economic context, focused on identifying the attributes that enable some individuals and organizations to better survive setbacks. This literature suggests that a realistic outlook, the ability to create meaning out of what is happening, and the ability to improvise are important attributes of resilient people (Coutu, 2002).

Resilience is in part determined by the individual's general personality structure, including traits, states, goals, self-regulatory processes (e.g., coping strategies), life story and self-narratives (Mroczek, Spiro and Griffin, 2006). Longitudinal research spanning seven decades has confirmed that "conscientiousness" is an important personality trait that influences health outcomes including mortality risk (Martin and Friedman, 2007). The relationship between different aspects of personality and behaviour is complex, however. For example, one person who is by temperament generally conscientious may be at risk for making impulsive and rash decisions when over-tired or frightened, while another person with the same basic temperament may become even more cautious and reluctant to act than usual when under stress.

Risk taking is an important aspect of resilience. For example, falls are a leading cause of injury for seniors. In 2000-01, among seniors, 53% of injurious falls were the result of slipping, tripping or stumbling on a non-icy surface (Statistics Canada, 2007). Management of risk for falls through implementation of environmental and behavioural recommendations commonly made by health care providers is quite variable among older adults, despite recognition of the devastating consequences that may occur (Ward-Griffin, Hobson, Melles, Kloseck, Vandervoort and Crilly, 2004). Older adults at risk for falls have to decide if and how they will alter their behaviour and/or environment to limit that risk while at the same time maintaining their independence to an acceptable degree and coping with any adverse events that do occur.

A convergence of research suggests that aging may foster psychological resilience. Regulation of emotions in the service of maintaining a positive outlook, is thought to become increasingly important to people as remaining time (lifespan) grows shorter (Charles and Carstensen, 2007). Self-reported psychological distress declines as people age, while self-reported well being increases for seniors up to age 75 (Statistics Canada 2007). Self-ratings for stress continuously decline with age (Statistics Canada, 2007). A review incorporating findings from 160 samples and 102 disasters worldwide (omitting research on displacement and terrorism that occurs in the context of ongoing political conflict or war) found that younger and especially middle-aged adults were more often at greater risk for psychosocial symptomatology post-disaster than older adults (Norris, 2002). Specific to the Canadian context, a synthesis (Gutman, 2006) of case studies of the 1998 Quebec ice storm (Maltais, 2006a), the 1996 floods in Quebec's Saguenay region (Maltais, 2006b), British Columbia's 2003 firestorm (Cox, 2006), and the 1997 Manitoba flood (Lindsay and Hall, 2006) notes that overall, during these events emotional stress was a major health effect for many seniors and risky behaviours contributed to injuries, but many seniors demonstrated resilience, attributing positive as well as negative outcomes to their experience.

Nonetheless, over time cumulative challenges - including physical, cognitive and socio-economic losses - may progressively deplete the aging individual's capacity for resilience. Declines in self-reported psychological distress and self-reported well being are reversed in seniors 75 and older (Statistics Canada, 2007). A sense of mastery (i.e., the level of control a person feels they have over their life) declines with age (Statistics

Canada 2007). Several studies involving World War II veterans in the United States have suggested that trauma memories and symptoms may emerge or re-emerge in conjunction with the stressors that can accompany aging, such as deterioration of physical state, loss of long-standing coping methods used to control or suppress memories, and major changes in the home environment including relocation (Bonwick and Morris, 1996; Owen, Baker, Kasckow, Ciesla and Mohmed, 2005; Snell and Padin-Rivera, 1997). Suicide results in the loss of more lives than many other causes of death (e.g., motor vehicle accidents) annually in Canada. Men have a higher suicide rate than women at all ages and men age 75 and older are recognized as one of the high risk groups for suicide (Langois and Morrison, 2002).

### Social Capital

Social capital is a concept that has become widespread in health research and policy making. Health Canada has adopted a network approach to the definition of social capital. According to this model, “social capital refers to the networks of social relations that may provide individuals and groups with access to resources” (Gilbert and van Kemenade, 2006). This conceptual framework encompasses both individual social capital (the social networks through which the individual finds the resources he or she needs), and collective social capital (the networks formed by social groups within a community to achieve the resources needed to attain their goals) (Franke, 2006).

There is an established relationship between social capital and health. A medium to large network of strong ties is associated with better self-reported state of health. Individuals with ties to two or more organizations are also more likely to report being in good health than those without such ties (Bouchard, Roy and van Kemenade, 2005).

In general, seniors have good social networks. They are more likely than younger individuals to report not having close friends or other friends, but slightly more likely to report knowing their neighbours and having many immediate family members to whom they feel close. Seniors under age 75 are more likely to report having provided help of some sort in the past month than having received help from others (Statistics Canada, 2007). At the same time, within the ranks of Canadian seniors there are many vulnerable individuals with limited social capital. These individuals have need of significant levels of assistance and support from the broader community, which may or may not be forthcoming under conditions of social and environmental stability, let alone in an emergency situation.

It has been suggested that declines in perceived social support and societal embeddedness explain much of the mental health consequences of natural disasters (Norris, 2002). Disasters affect whole families and communities, with severe repercussions for the disaster victims’ ability to care for not only themselves but for each other (Norris, 2002). In this scenario, there is a grave and real risk that the more vulnerable segments of the population, including older adults with compromised functional and cognitive capacity, will suffer a disproportional depletion of already reduced social capital.



## Ageism

Research shows that, despite international protocols, seniors are given low priority and little attention during emergencies (HelpAge International, 2006). Ageism is implicated in this observation. The Encyclopedia of Aging (Maddox, 1995) defines ageism as “a process of systematic stereotyping and discrimination against people because they are old, just as racism and sexism accomplish this for skin color and gender”. Hansson (1989) summarizes the paradox of ageism when he notes that there is a distinct irony in people having acquired an enduring, prejudicial set of beliefs about a population that most of us are eventually destined to join.

Ageism serves to perpetuate stereotypic and negative views of the elderly, resulting in inequities in access to opportunities and resources. One result can be that older adults are systematically confronted with greater challenges under adverse circumstances than are younger adults, despite their increased vulnerability due to normal aging processes. For example, if older adults are expected to show poorer recovery after an illness, they may receive substandard care, with the result that their degree of recovery falls below their potential.

Portrayals of seniors in the media can perpetrate ageist attitudes both within and between generations. For example, a thematic analysis of newspaper articles found that an emphasis on seniors who were aging with few challenges marginalized seniors who did not meet this expectation, while an emphasis on the needs of older adults reinforced the perception that the older generation is a burden to families and societies (Rozanova, Northcott and McDaniel, 2006).

Vulnerability is defined by the *Emergency Management Framework for Canada* (Emergency Management Policy Directorate, Public Safety and Emergency Preparedness Canada) as “the conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards. It is a measure of how well prepared and equipped a community is to minimize the impact of or cope with hazards.” Ageism, like other forms of discrimination that foster inequity, may be an important contributor to a community’s vulnerability in an emergency situation. Available human resources may be under-valued and under-utilized on the one hand, while inequities and systemic discrimination may compound the need for assistance on the other.

### **Strategies and Enablers**

An evidence-based, strategic approach is needed to promote psychological and social wellbeing for seniors in the context of emergencies. The unique characteristics and needs of seniors must be integrated within personal, communal, and organizational emergency management efforts, with a focus on key issues at the intersection of gerontology, psychology and emergency preparedness. In this section, issues of particular concern for seniors are discussed at each of these levels: personal emergency preparedness, communal emergency planning, and emergency management organizations.

## ***Personal Emergency Preparedness***

Personal emergency preparedness is integral to reducing the vulnerability of both individuals and communities. Individual preparedness contributes an enhanced capacity for response and recovery by the community as a whole. Two psychosocial aspects of personal emergency preparedness that warrant more specific attention with respect to seniors are optimizing communication and building resiliency.

### Optimizing Communication

The key public health message conveyed by governmental authorities and other organizations regarding emergencies is to ensure you have a plan regarding supplies and personal care. Advice is available on numerous aspects of this message, including forms to help you make a plan and checklists for what to include in personal emergency checklists. See, for example, *Is Your Family Prepared?* (Public Safety and Emergency Preparedness Canada).

Much of the emergency preparedness messaging is generic although there are also targeted messages. See, for example, *Disaster Preparedness for Seniors by Seniors* (American Red Cross). During an emergency messaging is typically generic. For example, Lindsay and Hall (2006) report that the City of Winnipeg issued 75 News Releases and 41 Public Service Announcements during the 1997 Manitoba flood, but none specifically targeted demographic subgroups or identified vulnerable populations.

While information sharing is an essential component of emergency management, just providing information does not ensure communication is occurring. Reflecting historical differences in access to educational opportunities, older adults are far more likely than younger age groups to have low levels of literacy and numeracy. In 2003, more than 80% of seniors were considered to have prose literacy skills below the desired threshold for coping well in a complex knowledge society (Statistics Canada, 2007). A critical issue for emergency management organizations is whether information is developed and disseminated in ways that are equally accessible to population subgroups such as seniors who may have less comprehensive information processing skills and experience.

A second, equally critical issue is to determine to what extent people do what they are told to do by authorities, and if they do not, why not (Stefanovic, 2003). How does the feasibility and likelihood of follow through on good advice differ for older adults who are at different stages in their life course or at different levels of cognitive and functional capacity? For example, what percentage of older people follow through on the assembly of personal emergency kits, on evacuation orders, on instructions for safe return to communities and homes in the aftermath of a disaster?

There is a substantive literature on risk communication that can be used to maximize the overall likelihood that effective communication is occurring in response to a perceived or actual threat. Assuming that all possible efforts are made to maximize the effectiveness of

risk communications (e.g., appropriate language level, multiple media, credible sources, minimal “noise”, action-oriented (Covello, Peters, Wojtecki and Hyde, 2001), it is still the case that individuals will vary in their personal risk-taking and risk-mitigation behaviours. This variability is discussed under the rubric of compliance, adherence, competence, capacity and patient-centeredness in the health care literature, and plays out in many domains of both health care and daily living, including treatment decisions, diet, activity, living arrangements and financial management. There is a need to better understand the factors that influence the behavioural choices that seniors make in the context of emergencies and disasters as well.

Seniors’ recommendations to individuals, responders, municipalities and governments for emergency management before, during and after a disaster were directly solicited in research on the impact of floods in Quebec (Maltais 2006b). It is noteworthy that several of the recommendations provided by seniors to individuals speak directly to psychological factors, including risk-taking (e.g., “When a situation becomes dangerous, evacuate immediately, don’t take chances”).

There is an urgent need for knowledge exchange research and other activities that capitalize on seniors' knowledge and wisdom to develop and communicate emergency preparedness information effectively in the domains of both comprehension and implementation.

### Building Resiliency

There is a need to imbed the concept of resiliency more pervasively and effectively within the personal emergency-planning message. Good examples of resiliency messaging are readily available. See, for example, *Resilience and Disease Outbreaks* (American Psychological Association). This fact sheet explains behaviours, thoughts and actions that can build resilience such as maintaining a hopeful outlook and keeping things in perspective. Disaster management recommendations provided by seniors for other individuals speak to the attitudinal aspects of resiliency (e.g., “Learn to accept the situation; show courage, determination and energy”) (Maltais, 2006b). The importance of this psychological aspect of preparation for emergencies and disasters warrants greater prominence and more pervasive embedding within mainstream emergency preparedness documents, pamphlets and brochures.

Most public health messages promoting emergency preparedness emphasis the importance of having familiarity with the plan and practicing to ensure the plan can be competently carried out when necessary. These two elements – familiarity and practice – are critical components of mastery, an essential building block in psychological well being. The resilience literature suggests an additional cognitive-behavioural skill that warrants a heightened profile in the emergency preparedness dialogue, specifically, the ability to improvise (Coutu, 2006).

In addition to recommending what citizens should have on hand as emergency supplies, it would be useful to also have a prominent focus on contingency planning and “making

do”. In a case study of British Columbia’s 2003 firestorm, Cox (2007) notes that many respondents who had experienced the event identified the need for a “Plan B”, since the speed and unpredictability of the fire could quickly render original intentions obsolete. Older adults, along with others, would benefit from this kind of “what if” approach to planning. “What if you have a well-prepared emergency kit at home but the disaster strikes when you are visiting an unprepared friend? What if you find yourself in a shelter where sleeping arrangements are poorly organized? What if the electricity is off for longer than expected?” See, for example, *Tips for Seniors and People with Disabilities* (American Red Cross) for an example of contingency thinking in emergency preparedness for people who use personal assistance services in day-to-day life.

The gerontology literature suggests that seniors up to at least age 75 are, for the most part, largely independent, and have a generally positive outlook. They are a resource that should be tapped to better understand and communicate the importance of resilience in emergencies. They may be in the best position psychologically to encourage improvisation as a component of emergency preparedness, given their breadth and depth of life experience. They can enhance their personal preparedness by drawing on the considerable knowledge and historical perspective they carry with them into any emergency situation. At the same time, an explicit focus on the “do’s and don’ts” of improvisation could serve as a public education vehicle to reduce the likelihood of adverse outcomes arising from improvisation errors, such as the incorrect use of heating and cooking devices that occurred in the Quebec ice storm (Maltais. 2007a).

### ***Communal Emergency Planning***

There is increasing recognition that planning at the individual level is important but insufficient given the widespread and unpredictable nature of emergencies and disasters, and a complementary focus on communal emergency planning is essential (e.g., Norris, 2002). This is true for the population at large, including seniors. However, communal emergency planning must be the primary focus for frail and cognitively impaired older persons. Frail older adults may surprise us with their unexpected resilience in emergency situations (Cox, 2006). Nonetheless, it is clear that the quality of emergency planning and response that is instigated on behalf of this extremely vulnerable segment of the seniors’ population is a critical factor in their ability to survive in emergencies and disasters. In each of the Canadian disaster case studies summarized by Gutman (2007), the importance of communal action is evident.

Three contexts in which vulnerable seniors represent the predominant group are highlighted in this section: long term care homes, home care and end of life care.

#### Long Term Care Homes

There is wide variability in how long term care homes are defined, structured and funded in different regions of Canada. In general, however, these facilities provide a combination of care and accommodation to older adults and others with chronic illnesses, disabilities and/or deficits in daily living that necessitate skilled nursing care on a daily basis. The

prevalence of mental disorders in residents of long term care facilities is at least 80% (Conn, 2007). The most common of these is dementia. Dementia is a progressive, irreversible neurological disorder characterized by memory impairment and other deficits. Alzheimer's disease is the most common and well known of the dementias.

There is a large literature on dementia care that documents the importance of a supportive physical and social environment to maintain the delicate equilibrium of older adults with dementing illnesses. Much is known about how to avoid escalation of problem behaviours, emotional distress and cognitive deterioration through consistent, responsive care provided by familiar caregivers who are versed in the strategies and nuances of dementia care and psycho-geriatrics (Conn, Gibson, Feldman, et al, 2007).

Unfortunately, the urgency, unpredictability and chaos associated with emergencies and disasters create the antithesis of this environment. Thus, it is essential that emergency planning include a component specifically targeting the minimization of disturbance, confusion, and unfamiliarity, in addition to the usual focus on physical safety, for the frail elderly. For long term care facilities, strategies include, for example, evacuation planning that includes taking beds with residents to shelters, supporting familiar staff in their efforts to stay on duty, and ensuring families are able to make informed choices about the risks and benefits of taking family members home for the duration of the disaster (Cox, 2007).

### Home Care

Canadian home care is defined as “a range of health and support services received at home with costs being entirely or partially covered by a national/provincial/territorial health plan. These services enable clients incapacitated, in whole or in part, to live in their home environment” (Canadian Institute for Health Information [CIHI], 2004, p.2). Core program services include: maintenance, rehabilitation, long-term supportive care, acute care substitution, and end-of-life care (CIHI, 2004).

For home care clients, registries and check in systems can reduce the fear of abandonment in an emergency. For example, the case study of the 1998 Quebec ice storm notes that as soon as the storm hit, the CLSCs began contacted their home support clients to determine needs and prioritize responses (Maltais, 2006a). The value of this contact for the psychological well being of those contacted would be great. This experience also illuminated the importance of complete and current records, as well as appropriate linkages between service agencies and emergency response organizations.

One the challenges that can emerge is that frail seniors who have fallen through the cracks of social safety net may be first identified in the context of an emergency response (Maltais, 2006a). Similarly, previously unrecognized functional deterioration may be detected and/or new disorders and symptoms may make their appearance in this context, given the precarious balance and minimal reserve that characterizes frailty (Hogan, MacKight, Bergman, 2003). These are predictable contingencies that warrant attention in emergency planning for this vulnerable segment of the population.

## End of Life Care

Another predictable contingency is that some older adults caught up in the emergency or disaster will concurrently be dying. It is noteworthy that few fatalities were attributed to the four Canadian disasters summarized by Gutman (2007). However, both of the individuals whose deaths were attributed to the BC firestorm were relocated frail elderly nursing home patients, one of whom was receiving palliative care at the time of the emergency (Cox, 2006). Half of the 30 deaths attributed to the Quebec ice storm occurred among seniors, and the general increase in mortality rates observed for the same months in the year following the ice storm was greater for seniors than for younger people (Maltais, 2006a).

End of life issues are salient to seniors by virtue of their stage in the life cycle. In one study, issues of concern associated with death and dying identified by a relatively homogeneous group of people over age 80 included fear of how they would die, fear of becoming a burden to others, wanting to prepare for and have a choice with regard to where and when they die and issues related to assisted dying (Lloyd-Williams, Kennedy, Sixsmith and Sixsmith, 2007). Understanding how issues of concern vary as a function of diversity (e.g., race, ethnicity, gender) is becoming increasingly important as the population ages and becomes more heterogeneous (Duffy, Jackson, Schim, Ronis and Fowler, 2006).

Several initiatives to raise awareness of end of life issues in Canada have been sponsored by Health Canada (e.g., Fisher, Ross and MacLean, 2000; Wilson 2003; Acart Communications, 2006) and the Canadian Hospice Palliative Care Association (Ferris, Balfour, Bowen, et al., 2002) but as yet, there is little crossover on this issue to the emergency preparedness field. A dialogue on how to best support the end-of-life care needs of older adults and their families in an emergency situation should be initiated between these two areas of practice. Failure to engage in this dialogue will perpetuate systemic neglect of this significant and final stage of existence, with repercussions for individuals, family members and care providers.

### ***Emergency Management Organizations***

Among the actions that organizations involved in emergency management can take to protect the psychosocial well being of seniors in emergency situations are combating ageism and providing education and training.

### **Combating Ageism**

It is critical that those responsible for emergency planning evolve an understanding of the determinants of health and vulnerability within their infrastructures. The population health approach adopted by Health Canada is a reflection of the realization that individual health is a product of a myriad of factors, including income and social status, social support networks, education, employment and working conditions, social environments,

geography, physical environments, healthy child development, health services, gender and culture. (See: Public Health Agency of Canada: *Determinants of Health*). Lindsay (2003) has skillfully articulated the parallels between the determinants of health and the determinants of disasters.

Senior status per se does not constitute a risk for poor health or increased vulnerability in an emergency. Income and social status are pivotal factors, for example, regardless of age (Lindsay, 2003). However, older adults who are poor, in ill health, social isolated and female, for example, may experience a cumulative effect of increased vulnerability due to the co-occurrence of all of these factors. Moreover, in addition, they may be the victims of ageism.

Ageism in the emergency preparedness context may manifest itself in explicit or subtle ways, and often is not recognized by either younger or older adults. Ageism may result in over-generalization in planning initiatives. For example, it may be assumed that all individuals with sensory or functional impairments (e.g., vision or hearing or mobility deficits) are the same, thereby failing to recognize the constellation of factors that may be more prevalent in older populations (e.g., vision and hearing and mobility deficits). It may be manifested through inadvertent or blatant insensitivity. Many older adults experience discrimination with overtones of ageism, sexism and racism combined. It may be manifested through systemic discrimination. For example the same situation or need may be assessed differently on the basis of age alone, without consideration of either equality or equity.

Research by HelpAge International (2006) has identified a number of strategies to mitigate the systemic neglect of older persons in emergency responses. One of these is to mainstream older people's concerns into organizational policies. In the psychosocial arena, there are numerous resources available within Canada to assist program developers and decision makers with this task. The Public Health Agency of Canada has established an international reputation as a leader in the promotion of seniors' issues in emergency preparedness, including a focus on mental health (Public Health Agency of Canada, 2007).

Other non-government organizations are likewise playing a role. For example, the Canadian Coalition for Seniors Mental Health ([www.ccsmh.ca](http://www.ccsmh.ca)) represents more than 85 organizations and 450 individuals committed to the mandate of "connecting people, ideas and resources" for the betterment of seniors mental health in Canada. Emergency preparedness is a focus of this network. CARP (Canadian Association for the 50 Plus) ([www.carp.ca](http://www.carp.ca)) is an influential seniors organization in Canada that has recently initiated a focus on emergency preparedness for its constituency. The Canadian Psychological Association is engaged in numerous emergency-related initiatives, including a focus on seniors ([www.cpa.ca](http://www.cpa.ca)).

Emergency organizations need to acknowledge that, at this stage, where older adults are not included in national, regional and/or municipal emergency planning exercises it is not

a reflection of lack of applicable resources. Other contributing factors, potentially including ageism should be identified and addressed.

### Education and training

There is a need for training in several camps. First responders (e.g., firemen, police officers) and mental health professionals without gerontology training who assist in the disaster response need to know about psychosocial aspects of aging so they can more effectively act to reduce sources of risk and vulnerability for seniors, especially frail and cognitively impaired seniors. Health care providers who work with older adults need to know more about emergency preparedness so that they can include consideration of these issues in their interventions with home care clients and others. For example, a visiting nurse may be in the best position to engage a home care client in a discussion about whom they could call on for assistance in the event of an emergency.

There is a need for the development of a succinct curriculum on aging and emergencies. One useful topic would be the heterogeneity, diversity and strengths of the older population and the appropriate utilization of their potential contributions. Another would be education on aspects of the social and physical environment that exacerbate or attenuate stress for frail and cognitively impaired older adults. It may be particularly important for responders to understand that older persons may have a different perception on the relative value of both symbolic and material losses (Cox, 2003), including attachment to place (Stefanovic, 2003) that can be related to their stage in the life cycle. Many helpers need assistance to learn how to combat the common tendency to avoid or minimize end of life issues. Another topic is the issue of time itself. Older adults have a compressed timeline for disaster recovery and often a different set of social and material resources than younger adults.

It would also be useful for responders, especially those with a role in recovery and risk mitigation activities to know about factors that appear to be protective in the long term for post-trauma mental health. For example, studies including British (Hunt and Robbins, 2001), Finnish (Hautamaki and Coleman, 2001) and Soviet WWII veterans (Coleman and Podolskji, 2007) have identified formal remembrance activities, peer associations, hope and interest in future generations especially family, and societal support and respect as factors that are protective for mental health in old age for veterans.

There are significant efforts underway to develop and disseminate education and training on seniors and emergency preparedness, including a focus on mental health issues. See, for example, the National Association of Geriatric Education Centers in the United States ([www.nagec.org](http://www.nagec.org)) for a major initiative on curriculum development and dissemination. The Division of Aging and Seniors, Public Health Agency of Canada is actively supporting national and international collaboration that will further the development and dissemination of relevant knowledge on emergencies and seniors, including a focus on psychosocial issues.



## Conclusions

There are a number of actions that can be undertaken by the emergency, gerontology and health care communities in tandem with seniors themselves to promote psychological and social well being for seniors in the context of emergencies.

These include:

- Ensure information is developed and disseminated in ways that are equally accessible to all population subgroups including seniors.
- Learn about the factors that influence the behavioural choices that seniors make in the context of emergencies and disasters.
- Conduct knowledge exchange research and other activities that capitalize on seniors' knowledge and wisdom to develop and communicate emergency preparedness information.
- Embed the concept of resilience within mainstream emergency preparedness documents, pamphlets and brochures.
- Develop a prominent focus on contingency planning and “making do” in personal emergency planning.
- Utilize the knowledge, life experience and wisdom of seniors to better understand and communicate the importance of resilience in emergencies.
- Target the minimization of disturbance, confusion, and unfamiliarity in interventions for frail and cognitively impaired older persons.
- Ensure registries and check in systems for home care clients are up to date and functional.
- Plan for predictable contingencies, such as the identification of frail and cognitively impaired seniors in need of services and the emergence of new disorders and symptoms during the emergency period.
- Determine how to best support the end-of-life care needs of older adults in an emergency situation.
- Acknowledge that exclusion of older adults from national, regional and/or municipal emergency planning exercises it is not a reflection of lack of applicable resources.
- Identify and address the contributing factors, potentially including ageism.
- Develop a succinct curriculum on aging and emergencies for training purposes.

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