M.GIBSON (Convener). Expanding the technology safety envelop for seniors to include disaster resilience. Gerontechnology 2010;9(2):91;
doi:10.4017/gt.2010.09.02.037.00 **Participants**: *R. ROUSH (USA), S. HIRST (CANADA), L. MAZURIK (CANADA),* and *G. GUTMAN (CANADA)*. **ISSUE** The Gerontechnology literature reveals a variety of high-tech approaches designed to help older adults function in their daily lives with a greater degree of independence than they might otherwise, given their physical health and cognitive status. Many older adults experience a heightened sense of security secondary to this use of technology. Speakers will address the validity of this perception in the context of emergencies and disasters. Emergencies and disasters are increasing world-wide, secondary to factors including climate change, human pressures on the environment, infrastructure failure and armed conflict. Mounting evidence suggests that older people suffer disproportionately in emergencies and disasters as a consequence of largely remediable factors. **CONTENT** Emergency Management (EM) includes a wide range of activities that aim to create a state of preparedness to deal with emergencies should they occur, enable response as needed, facilitate recovery in the short to midterm, and mitigate risk for emergencies and disasters over the long term. The presentations will explore what needs to be done to actualize the potential for gerontechnology to make a substantive, unique and potentially life-saving contribution to the call for sound and effective practices, protocols and resources in all phases of EM. **STRUCTURE** Robert Roush will provide an overview of the key issues at the intersection of Geriatric Emergency Preparedness and Response (GEPR) and gerontechnology, including the potential utilization of personal emergency response services (PERS) to abate risk for seniors in emergency situations. Sandi Hirst will present an analysis of key issues that uniquely impact the most vulnerable segment of the seniors' population: frail older adults who reside in congregate living situations, whose outcomes in emergencies and disasters are almost fully dependent on the integrity of their technological and human resource support systems. Laurie Mazurik will describe the application of existing communication technologies to meet the unique information and support needs of older adults in the response phase of an emergency or disaster, including findings from simulation research. Gloria Gutman will review the evidence base on use of technology as a support for seniors in recent natural disasters in Canada and internationally, drawing on case studies commissioned by the Public Health Agency of Canada and partners. Following the presentations there will be an open discussion led by Maggie Gibson, focused on applying the expertise and insights of the audience to this pressing but under-recognized issue. **CONCLUSION** It is time to look beyond the day-to-day applications of gerontechnology and explore how technological solutions that increase safety and capacity for older adults on a routine basis can be utilized to combat their disproportionate vulnerability and increase their resilience in large-scale emergencies and disasters.

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R.E. ROUSH, G. GUTMAN. Using preventive gerontechnological systems to monitor residents' behavior for health services during emergencies. Gerontechnology 2010;9(2):92; doi:10.4017/gt.2010.09.02.038.00 **Purpose** To review both American and Canadian use of personal emergency response services (PERS) in natural disasters and pandemics. Over the past 15-20 years, there has been much interest in research on PERS, especially when indicated by health or social circumstances[1] and on technology assisting elders to live independently in their places of residence as long as possible[2]. Remote monitoring systems have led to fewer and shorter hospital days and to lower overall costs[3]. First generation electronic activities of daily living reporting systems were developed to gather data unobtrusively on the well-being of elders living alone and to send reports to clients[4]. Since 9/11/01, increased attention has also been placed on the need to train health care professionals and public health agencies about geriatric emergency preparedness and response (GEPR) issues, especially as they relate to elders living in assisted living facilities and nursing homes, as these persons reside there primarily because they are not as capable of independent living as are community-dwelling older adults[5,6]. **Method** An expert-informed synthesis of these and other literature citations will be presented. **Results & Discussion** Melding traditional gerontechnological systems like PERS with that of GEPR can help us locate elders in need of health services or evacuation during emergencies, regardless of being natural in origin or human-caused.

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S. HIRST, K. FITZGERALD. The interface of technology, disaster management, and long term care facilities. Gerontechnology 2010;9(2):92-93; doi:10.4017/gt.2010.09.02.039.00 **Purpose** In many disaster situations, older adults within long term care facilities are amongst the most vulnerable of Canada's population, for they do not often have the ability to make decisions or take actions for themselves. Consequently, in addition to being responsible for the everyday care of their residents, it is essential that staff of long term care facilities know what to do in disaster and emergency situations. At the same time, there is a continued introduction of technology into these same facilities. Technology and old age are not strangers to each other. There is a long standing tradition of health care support; for example, assistive technologies ranging from communication tools to mobility aids to assist frail and disabled older adults to have enhanced quality of life. What is new is the emerging attention being given to the interface between technology solutions specific to disaster management and long term care facilities. Technology is a potential enabler in creating disaster management systems that are integrated, reliable, and address the needs of older adults living in long term care facilities in efficient and effective ways. However, the degree to which the technology is ready for adoption within long term care facilities, either in theory or practice, is open to discussion[1,2]. To make technology useful to and usable by long term care administration creates challenges for key stakeholders including: the research and design community, older adults, and facility staff. There are numerous reasons for this such as cost, lack of access to training programs, and

age of buildings. **Method** A critical review was conducted of the published literature specific to this topic plus an extensive internet search was completed to provide the context for this paper. **Results & Discussion** Discussed in this presentation are some of the challenges faced by long term care facilities in using technology specific to disaster management. Micro level challenges include access to phones and evacuation when elevators are not functioning. Macro system challenges include communication with families and local disaster management services. In addition, a brief discussion of strategies to include the needs of older adults living within long term care facilities and administrative staff in the design and implementation process of technological strategies to promote disaster preparedness will be presented. It is hoped that this presentation will highlight some important issues and in doing so help build bridges between technology, disaster management, and the long term care facilities.

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L. MAZURIK, R. FISHER, G. SOULIERES, P. ARNOLD, A. DICK, S. VEERASINGHAM, A. BURTON. Using social networks to build a 'Community Health Corps' lead by seniors. Gerontechnology 2010;9(2):93-94; doi:10.4017/gt.2010.09.02.040.00 **Purpose** To demonstrate that seniors can be connected using Internet and social networking strategies to form a 'Community Health Corps' capable of responding to both emergency and daily social, economic and health challenges in their community. **Method** In 2010-13, as part of a federal project, our team will create a web-enabled workspace to link several groups to build a 'Community Health Corps' (CHC). The role of the CHC is to support efforts to build and/or sustain a healthy community i.e. the health, psychosocial, security and safety requirements of a population. The corps has the military definition as consisting of organized units with a mission. Everyday examples of civilian 'corps' are volunteer organizations that support community needs such as relief of poverty or cultural enrichment through arts programs etc. There are many of these, and part of the challenge for the CHC will be to examine the roles of these organizations in their community and collaborate with them to develop a community disaster plan. Three, live, simulated, disaster exercises will be conducted in 2011-2012 to measure how well a Community Health Corps can prepare for and respond to a major community disaster. Two exercises will be conducted in different geographic locations in Canada and the last will be an Internet based, national pandemic exercise. Each participant will need access to Internet and go through basic training on how to use the technology and social networks, in preparation for the exercises. The project team will monitor how participants of different ages and backgrounds use technology and social networks to build their community health corps, and how well they respond during the exercises. The results of this will be presented in 2012-2013. Target population for CHC Recruitment: seniors and youth 15-24. Rationale: Seniors have the greatest amount of life experience yet know the least about social networking technologies[1-3]. Youth ages 15-24 have the greatest knowledge of how to use social networks to communicate, but the least life experience and the highest unemployment rate in Canada at 15.9%[4]. Both share common problems due to retirement or unemployment: (i) Loss of acknowledged work contribution to their community, (ii) Social isolation, and (iii) Reduced savings. Although other ages will be involved in this project, this subset of youth and seniors may well provide the greatest untapped intellectual and physical capacity available in Canada. **Results & Discussion** Enrolment and method will be discussed.

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G. GUTMAN, P. GORR, J. SWAN. The role of technology in emergency preparedness and response for seniors: Lessons learned and opportunities for innovation. Gerontechnology 2010;9(2):94; doi:10.4017/gt.2010.09.02.041.00 **Purpose** This presentation will situate gerontechnology within the context of an initiative led by the Public Health Agency of Canada (PHAC) to raise awareness and facilitate change regarding seniors in all phases of emergency management[1]. As part of this initiative, 16 case studies were commissioned by PHAC and partners to examine the impact of natural disasters and conflict-related emergencies on older persons[2]. Literature was also collected to inform and support two international workshops held in 2007 and 2008. The case studies and key literature sources have been re-analyzed to identify innovative technological solutions used to respond to seniors' needs and enhance resilience in a range of disasters worldwide. Lessons learned, gaps and opportunities for next steps will be presented. **Method** Recent disasters have reinforced the potential for technology to aid in identifying the whereabouts of at-risk seniors and in meeting their information and communication needs. The use of existing and emerging technologies could be instrumental in mitigating the isolating effects of emergency situations for seniors and other vulnerable populations, maintaining functional independence and facilitating recovery. Four Canadian and 12 international case studies and two synthesis papers [2,3] were included in the analysis. Other literature examined for evidence of innovative use of technologies included journal articles and reports. **Results & Discussion** Examples will be described of situations where ICT and other types of technology did or could have made a difference. During disasters, emergency response managers need to have systems in place to quickly identify and communicate with at-risk seniors. If evacuation is necessary measures need to be undertaken to address potential psychosocial/health issues. The longer term recovery process requires other applications of ICT. Similarities and differences in the situation of frail seniors living in rural and remote locations and those living in urban areas will be highlighted. Summer and Winter disasters also pose different challenges for seniors and emergency responders in Canada. Implications of these and other findings for policy, practice and training of emergency responders and gerontological health and social care providers will be discussed.

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