

# “Hidden in Plain Sight:” A Sex- and Gender-based Analysis of Disasters and Emergency Planning

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## Introduction

This case study introduces readers to issues facing women and men, boys and girls when disasters occur – whether these are triggered by environmental emergencies, biological hazards or technological risks, or are deliberately induced. The study addresses planners directly, offering practical advice for ensuring that health care professionals, service managers and providers, policy makers and volunteers have available to them the necessary information and tools to undertake disaster risk management with sex and gender in mind.<sup>a</sup>

## Why Do We Need Sex- and Gender-based Analysis of Emergencies? Isn't a Disaster the Same for Women and Men?

The short answer to the second question is “no.” Women and men, girls and boys may be experiencing the same disaster, but they are likely to experience it differently. Sex-specific health risks may be an important difference between women and men. Men are statistically more likely than women to suffer heart disease<sup>(1)</sup> and the risks of heart attack may be heightened by the stress associated with an emergency. Men in heat-stressed occupations (e.g., construction work, agricultural labour and steel manufacturing) and heavily pregnant women may be more vulnerable to the effects of extreme heat and hence need specialized support in the midst of an emergency, such as special forms of transportation.<sup>(2)</sup> Gender roles and stereotypes likewise affect the experiences of women and men during disasters. Men are expected to be physically stronger than women and therefore will often engage in hard labour during emergencies, while women are frequently assigned to tend the ill and injured because they are expected to be natural nurturers.

Gender touches down at every point in the disaster cycle – before and after as well as during emergencies. For example, men's priorities in preparing for and responding to emergencies often predominate in family debates. Men are usually the ones to decide whether or not to buy insurance or put up hurricane shutters as well as when to evacuate, where to go, what to take, how to live and when to return.<sup>b</sup> At the same time, households headed by women are often seen as vulnerable and in need of financial or other forms of assistance because it is assumed that single mothers or grandmothers either will not or cannot prepare their homes and families for a disaster.

a Readers are also directed to the gender and disaster sourcebook for additional tools, checklists and policy guidelines. See: Gender and Disaster Network. The gender and disaster sourcebook. [Internet]. c2008 [cited 2008 March 30]. Available from <http://gdnonline.org/sourcebook/>

b For a summary of these and other points and supporting references, see Fothergill A. The neglect of gender in disaster work: an overview of the literature. In: Enarson E, Morrow BH, editors. The gendered terrain of disaster: through women's eyes. Westport: Praeger Publishers. 1998; p. 11-26. There is a great need for more context-specific and contemporary research from Canada in this area.

*After about 1½ hours of sleep Friday night, I turned the radio back on and they were saying that the whole town should evacuate-our area was specifically named. I woke [my husband and grown son] about 5 am. Both said they would not go . . . It took me until the afternoon on Saturday to convince [them] that we should leave. All medical services were down, and I didn't want to have to worry about getting him [my husband] to medical help if he should need it in an area where none was available. [My son] refused to go. [Rural female resident recalling the 1997 Red River flood in Manitoba]*

*He lost weight, he wasn't shaving. I at least could take some down time and take the kids out in the wagon. He would gobble down some food at noon and then go back to [flood] work. . . . He started crying. You wouldn't know unless you're from a small town. [Rural female resident recalling the Red River flood in Manitoba]*

In the wake of disasters, women's experiences are also quite different from those of men. For example, post-disaster economic relief and recovery packages often do not reflect women's dominance in informal, part-time and home-based labour where they generate modest but essential income through such occupations as home child care or food catering. The economic impacts on women can be severe when the loss of a home also means the loss of working supplies, work spaces, equipment, inventory, markets and credit lines.

Women also suffer the aftermath of disasters when social networks are frayed, when family and kin are displaced and when they feel the cumulative effects of caring for others, especially for men and boys not well served by existing mental health care approaches to disaster. Women also face an increased risk of domestic violence: studies have found that the number of calls to women's shelters can increase as much as a year after the conclusion of an emergency.<sup>[3]</sup> Not only are women differently affected than men by disasters, but also different groups of women and men will have different needs and will respond differently in the midst of emergencies. For example, the needs of seniors in off-reserve Métis families are likely to be very different from the needs of affluent same-sex couples in Toronto. Similarly, professional caregivers may experience distinctive challenges during crises, when they may be feared and shunned even as they are expected to care for others.

*Nurses are praised for what we do, but shunned because we do it. I live in the paradox of being a hero and a pariah at the same time. [Female nurse recalling the reaction of colleagues and family following the SARS outbreak]*

According to the Canadian Red Cross,<sup>[4]</sup> women represent one of ten populations at high-risk during emergencies, but within this rather large category, extra attention is warranted for particular groups of women, such as those who are pregnant, have many dependents, have experienced or are experiencing abuse, and those who are socially isolated and liable to “fall through the cracks.” At the same time, a sex- and gender-based analysis highlights the needs of specific groups of men, such as those who are unlikely to seek assistance or are isolated, such as widowers and men in first responder roles.

## **Do Those Planning for and Responding to Emergencies Understand the Different Needs and Realities of Women and Men, Girls and Boys?**

During the past 15 years, our understanding of the role of gender in disasters has advanced markedly.<sup>c</sup> Multidisciplinary case studies, emerging mainly from the United States and South Asian countries, along with population surveys and experimental studies on such topics as evacuation and risk perception, have yielded significant information about predictable sex and gender differences and about the gender-based inequalities that undermine people's resilience in the

<sup>c</sup> For an overview of the field, see Fothergill A, Peek L, Enarson E. Gender and disaster: foundations and possibilities. In: Rodriguez H, Quarantelli EL, Dynes R, editors. Handbook of disaster research. New York: Springer. 2006; p. 130-59. Also see Enarson E. Gender. In: Phillips B, Thomas D, Fothergill A, Blinn-Pike L, editors. Social vulnerability to disasters. Boca Raton: Taylor and Francis, CRC Press. 2009; p. 123-54. Also see Enarson E, Meyreles L. International perspectives on gender and disaster: differences and possibilities. Int J Sociol Soc Policy. 2004;24(10/11):49-93.

face of disasters.<sup>d</sup> In 2005, the global Gender and Disaster Network produced a short guide, entitled *Six Principles for Gender-Fair Relief and Reconstruction*, which has been widely circulated and translated.<sup>e</sup>

Despite these advances in our knowledge, sex- and gender-based analysis seems to take place mainly in the wake of disasters. Following the Indian Ocean tsunami, for example, it became apparent that girls and women were three or more times as likely as men to die.<sup>f</sup> Conversely, in the aftermath of hurricane Katrina in the US, it became clear that women's social networks saved lives.<sup>g</sup> Moreover, governments and agencies often realize they need help with gender issues only after disaster has struck. Following the 2008 earthquake in China and cyclone in Burma, urgent appeals were made about how to respond to women's specific needs: women need clean underwear, girls are raped in emergency shelters, grieving grandmothers must cope with orphaned children, pregnant women do not have the food or vitamins they need – the list is long.

During periods of peace, calm or safety between disasters, when sex- and gender-based planning might be pursued, it is used sparingly, if at all; it does not guide policy in or out of government; it fails to reach those in the field as well as those in need; and when it is undertaken, it is often too general to be useful – or all of the above. In Canada, as in most developed nations, gender issues are rarely considered in emergency planning or response efforts, either in public information or more formal training programs.<sup>h</sup> Indeed, a perusal of preparedness materials posted on governmental and non-governmental websites yields more information about pets, by far, than about specific issues women and men should consider in preparing for the unexpected.

The absence of SGBA and limited uptake of existing knowledge about women, men and gender in disaster undermine the capacity of national and local emergency planners to develop plans that are inclusive, appropriate and cost effective. In other words, a sex- and gender-based analysis provides critical information for planning on key issues, such as evacuation behaviour, long-term economic recovery, gender-specific psychosocial strains and violence prevention. SGBA is also necessary because human rights can be endangered in crises when gender equity norms are not part of the working culture of emergency practitioners and gender knowledge is not reflected in their practical tool kits.<sup>h</sup>

d The Gender and Disaster Network provides case studies and other good sources (see [www.gdnonline.org/index.php](http://www.gdnonline.org/index.php)). Also see Fothergill A. Women's roles in a disaster. *Appl Behav Sci Rev.* 1999;7(2):125-43.

e For more information, see Gender and Disaster Network. Gender equality in disasters: six principles for engendered relief and reconstruction. [Internet]. c2005 [cited 2008 March 30]. Available from [www.gdnonline.org/resources/genderbroadsheet.doc](http://www.gdnonline.org/resources/genderbroadsheet.doc). See also UN InterAgency Standing Committee. Gender handbook in humanitarian action women, girls, boys and men: different needs, equal opportunities. [Internet]. c2006 [cited 2008 March 30]. Available from [www.humanitarianinfo.org/iasc/pageloader.aspx?page=content-subsidi-tf\\_gender-genderH](http://www.humanitarianinfo.org/iasc/pageloader.aspx?page=content-subsidi-tf_gender-genderH). For an excellent guide produced for international humanitarian relief workers, see the Canadian International Development Agency. Gender equality and humanitarian assistance: a guide to the issues. [Internet]. c2003 [cited 2008 March 30]. Available from [www.acdi-cida.gc.ca/INET/IMAGES.NSF/vLUIImages/Africa/\\$file/Guide-Gender.pdf](http://www.acdi-cida.gc.ca/INET/IMAGES.NSF/vLUIImages/Africa/$file/Guide-Gender.pdf)

f Reported in Oxfam. The tsunami's impact on women [briefing note on Internet]. c2005 [cited 2008 March 30]. Available from [www.preventionweb.net/files/1502\\_bn050326tsunamiwomen.pdf](http://www.preventionweb.net/files/1502_bn050326tsunamiwomen.pdf).

g The IFRC World disaster report on neglected emergencies; 2006, Available from [www.ifrc.org/publicat/wdr2006/summaries.asp](http://www.ifrc.org/publicat/wdr2006/summaries.asp) includes a chapter on gender in which women's networks before Katrina are credited with preventing more harm. Also see Enarson E. Women and girls last? averting the second post-Katrina disaster. [Internet]. c2006 [cited 2008 March 30]. Available from <http://understandingkatrina.ssrc.org/Enarson/>. Also see Enarson E. Sociologists for women in society factsheet: women and disaster. [Internet]. c2006 [cited 2008 March 30]. Available from [www.socwomen.org/socactivism/factdisaster.pdf](http://www.socwomen.org/socactivism/factdisaster.pdf)

h See, among others, Enarson E, Fordham M. From women's needs to women's rights in disasters. *Environmental Hazards.* 2001;3:133-6.

*I really can't over-emphasize the need for child care workers. I worked 18 hour days seven days a week for several months on end and my children just got left to fend for themselves. My community had promised they would look after my kids while I worked but that promise soon went by the board. [Female volunteer recovery coordinator recalling her work after the 1997 Red River flood in Manitoba]*

## Why Are the Women Missing From Disaster Planning?

Why, we might well ask, is sex and gender so conspicuously absent, when ethnicity, age, income, literacy, physical/mental ability and other factors are acknowledged as significant influences on vulnerability in the context of disasters?

Part of the answer lies in emergency management's long roots in male-dominated and military occupations and work cultures. Moreover, the lack of interest in emergency planning by most gender specialists and women at the community level serves to reinforce the status quo of male leadership in this area. Male dominance is further bolstered by media images of disasters, which tend to focus on hard-working male youth and men sandbagging, clearing rubble or cutting fire lines. The extensive and exhausting labour of women working with friends, family and extended kin is, by comparison, less visible and valorized, even though their efforts to arrange alternative housing and child care, provide uninterrupted care for persons in fragile health or move important cultural materials or resources needed by women's groups to safety are also essential. Overly generic language – such as “parents,” “caregivers,” “responders” – also tends to mask significant gender differences in the roles and work undertaken by women and men. In other words, women's work during disasters is “hidden in plain sight.”

Another reason for the lack of attention to sex, gender and disasters in Canada lies in the happy fact that we have experienced relatively few destructive events or catastrophes. In the absence of dramatic events that capture the public imagination and tax community or government resources, researchers and policy makers are less motivated to undertake new disaster research or reconsider emergency planning strategies. As a result, we not only have insufficient data on sex and gender differences to inform disaster planning, but also by focusing on “the big one,” we neglect more common emergencies, such as flooding, heat waves and localized water pollution, which also have significant gender components.

## How Do We Mainstream Gender Into Disaster Management?

Planning “with a gender lens” does not mean “add women and stir,” but involves a new way of approaching emergency management that sees women and men as full and equal partners in the management of risk. The key is learning to ask the right questions, and then seeking data, information, knowledge and insight from community members to find answers.

At every stage of the disaster cycle, decision makers and practitioners need sound evidence collected with attention to: 1) sex and gender differences through the life course; 2) differences across diverse populations of women; 3) shifts in relevant national patterns and trends; and 4) applications throughout the disaster life course of preparedness, mitigation/adaptation, response and recovery.

Existing databases can provide important information for planning, such as the percentage of women and men in different age groups known to be at risk (e.g., the young and the old) or the percentage of women and men with functional language or literacy limitations. Sex-specific employment data can further indicate women's and men's relative exposure to hazardous materials or working conditions and hence to increased risk in the event of a hazardous

*In 1976 I was in Gaspé when hurricane Blanche hit... We had not received any weather warnings, and it was only after the sky changed colours that I phoned a neighbour to tell her that her TV antenna and garbage cans had been blown away by the wind... I had two young children aged 1 and 3. I thought that by pushing a table against the fridge and huddling over my children, we would be safe. I thought of hiding in the basement, but was too afraid that we would not be found if, heaven forbid, trees fell on the house and a fire started... I later created my safety plan and emergency kit, because I now knew that this did not just happen to others. This came in handy because I was hit by the 1998 ice storm in Montreal. I was staying at a hotel... When the blackout hit Montreal, I became the point of reference at the hotel, as I was autonomous and had information via the radio. This enabled the hotel to keep its clients informed because people were in a panic and to take people in because they understood the scope of the problem. Today, I am ready. My kids and grandson know how to make their own kit, because they know the unexpected can happen to them. [Credited to “Louise” and posted on the website of Public Safety Canada: [http://getprepared.gc.ca/stry/stry\\_e.asp](http://getprepared.gc.ca/stry/stry_e.asp)]*

### “How Can I Include Sex and Gender in Risk Analysis: Where are the Data?”

- Request sex-specific data from provincial, regional or national planning authorities
- Collaborate with researchers, including gender studies students
- Network with local women’s groups to learn what sex-specific data they collect or can access
- Consult foundation reports and case studies conducted with women or on gender relations in your area
- Estimate local conditions by examining higher-order Statistics Canada data (e.g., on the proportion of women who rent or grandfathers who are primary caregivers for young children)
- Partner with women’s groups active in such areas as sustainable development, environmental, safe cities, immigrant rights, or disability in order to fund local research and background reports
- Ask municipal authorities, health operations, or housing specialists to track relevant trends by sex for use by emergency planners
- Post queries on specific topics to the Gender and Disaster Network of Canada
- Form a community advisory committee that includes organizations working with high-risk women and their families, and help them conduct participatory action research strategies to meet your knowledge needs as local planners for community safety

materials spill or pandemic. For example, women were disproportionately affected by the SARS epidemic in Toronto because they constituted the vast majority of health care professionals. Likewise, health conditions related to sex and gender can be tracked and factored in as local risk factors by emergency medical planners and sex-specific data on health status can be used by planners to pre-position supplies or target populations in risk communication or train emergency responders.

Where evidence, such as estimates of the numbers of women likely to be pregnant in a given population or locale, is not currently available, it may be wise to encourage local planners to gather this kind of information.<sup>i</sup> Other types of evidence relate to employment and earning strategies and the dependence of women and men, respectively, on natural resources; where homelessness takes women and men; what community agencies, if any, are lifelines for sexual minorities; the availability in different populations of extended kin networks of support; the relative safety of boys and girls, women and men in public and private spaces; and the groups and organizations that ground and support women and men in their communities.

While sex-specific data are critical for health planners, they are hardly a “magic bullet.” In addition to collecting statistics, planners need know how the everyday lives of women and men are shaped by sex and gender differences and inequalities at every stage of the disaster planning cycle. The first step in understanding the role of gender in disasters is to “see” and appreciate the challenges of everyday life equally for women and men, girls and boys. Planners also need to adopt a human rights approach to disaster management because without this commitment they are unlikely to understand or respond to inequalities based on gender power.

Finally, planners need to look beyond vulnerabilities to consider what capacities, resources and skills women and men in different life circumstances bring to emergency preparedness, response and recovery. The social networks, skills and resources, and life experiences of women and men can all be brought to bear on emergency preparedness, response and recovery.

<sup>i</sup> See, for example, Callaghan W, Rasmussen S, Jamieson D, Ventura S, Farr SL, Sutton PD, et al. Health concerns of women and infants in times of natural disasters: lessons learned from Hurricane Katrina. *J Mat Child Health*. 2007;11:307-11.

## Conclusion

Using a sex- and gender-based analysis contributes directly to increasing the readiness of Canadian families, businesses and communities for any eventuality and can be extremely useful for anticipating and taking steps to reduce the impacts of disaster known to affect women and men differently and disproportionately. Disaster research and planning are moving in this direction internationally with support from leading UN authorities and growing recognition of the importance of gender as a “cross-cutting principle” in efforts to reduce and manage risk. At the community level, building partnerships for gender-sensitive participatory action research is an excellent foundation for community-based disaster risk management and a promising path for reducing the nation’s vulnerability to the hazards and disasters of our future.

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