
Using Gender Research to Enhance Disaster Public Health

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Disclaimer

- The ideas, attitudes, and opinions herein are my own and do not necessarily represent those of the US Army, The DoD or any other branch of the US Government.
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Core Competencies for Disaster Medicine and Public Health

- The following presentation may align with the following competencies from the academic article “Core Competencies for Disaster Medicine and Public Health”*
 - 3.0: Demonstrate knowledge of one’s expected role(s) in organizational and community response plans activated during a disaster or public health emergency
 - 4.0: Communicate effectively with others in a disaster or public health emergency
 - 5.0: Demonstrate knowledge of personal safety measures that can be implemented in a disaster or public health emergency
 - 8.0: Demonstrate knowledge of public health principles and practices for the management of all ages and populations affected by disasters and public health emergencies, in accordance with professional scope of practice
 - 9.0: Demonstrate knowledge of ethical principles to protect the health and safety of all ages, populations, and communities affected by a disaster or public health emergency
 - 11.0: Demonstrate knowledge of short- and long-term considerations for recovery of all ages, populations, and communities affected by a disaster or public health emergency
- *Citation: Walsh L, Subbaro I, Gebbie K, et al. Core competencies for disaster medicine and public health. *Disaster Med Public Health Prep.* Mar 2012; 6 (1) 44-52.

Gender-based analysis in disasters

What we know and how to use it

Close up: selected examples

Promising practices (selected)

Research gaps

Action steps

Discussion

Appendix A: Gendered flood narratives on health

Appendix B: Steps toward gender-responsive health care in disaster

Overview





[1] Gender analysis in disasters

Why gender? Why women?

- Well documented gender patterns in health status
- Fundamental organizing principle in human societies
- Demonstrably a factor in social vulnerability **and** resilience in disaster contexts
- Gender justice promotes disaster risk reduction

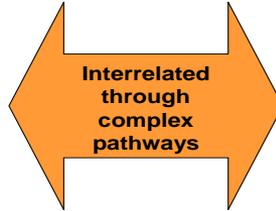


Gender-based analysis (GBA) in brief

- Prisms: sex, sexualities, gender, gender relations
- Gender is never irrelevant but must be investigated
- GBA assumes that gender is
 - Intersectional/cross-cutting
 - Historically and culturally specific
 - Contextual and relational
- Ask: “Who, what, why, how, under what conditions, with what resources (access & control) & with what effects?”

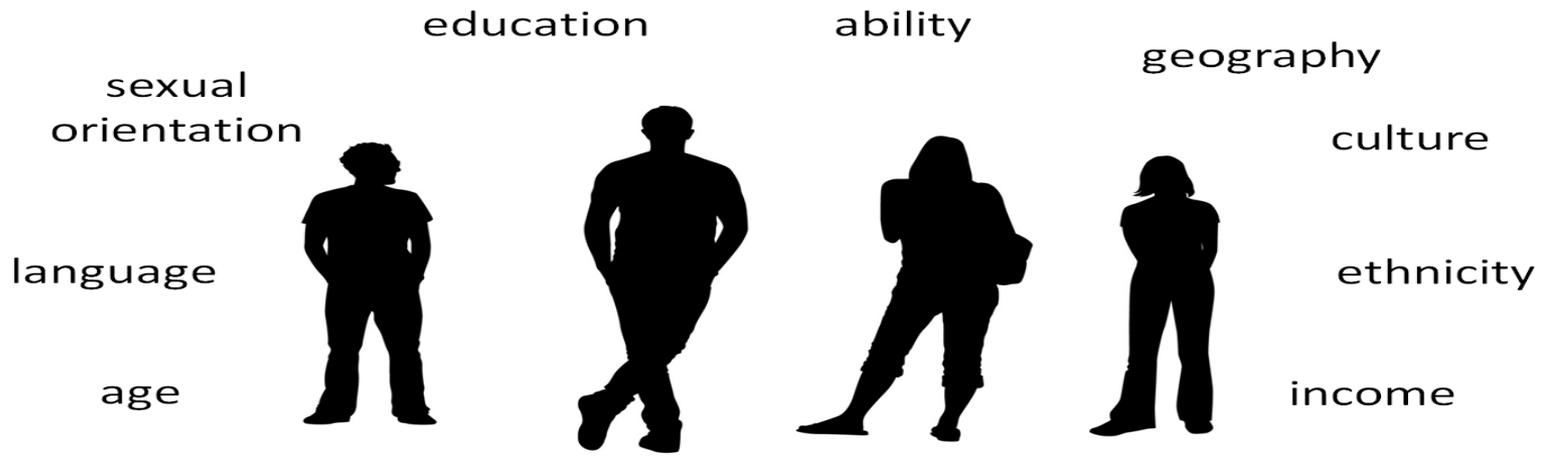
Gender-based Analysis

SEX
the genetic, biological and physiological characteristics and processes that generally distinguish males and females



GENDER
the socially constructed roles, relationships, values, attitudes, and forms of power that are commonly attributed to either men or women; includes self-representation

Note: DIVERSITY
analysis overlays GBA



The gender & disaster community of practice: A thumbnail sketch



Practical knowledge to reduce risk

- Gender and Disaster Network: Global & growing
- Advocacy & education
- Generally, our research is
 - Case study based; qualitative; largely written from global North but changing rapidly; multidisciplinary; focused on short-term impacts of sudden-impact events



Gendered dimensions of disaster

- Sex and gender matter
 - Vulnerabilities and also capacities
 - Through the disaster cycle
 - Across and within cultural groups and throughout life
 - At all levels of analysis and across sectors
 - In societies at all levels of development
 - Deeply rooted & defended patterns of difference & inequality

Enarson, E. (2012). *Women confronting natural disaster: From vulnerability to resilience*. Boulder, CO: Lynne Rienner; Enarson, E. & Chakrabarti, P.G.D. (Eds.) (2009). *Women, gender and disaster: Global issues and initiatives*. Thousand Oaks, CA.: Sage; Bradshaw, S. (2014). *Gender, development, and disaster*. Northampton: Edward Elgar ; Enarson, E. & Meyreles, L. (2004). International perspectives on gender and disaster: Differences and possibilities. *International Journal of Sociology and Social Policy* 14 (10), 49-92; Enarson, E., Fothergill, A., Peek, L. (2006). Gender and disaster: Foundations and possibilities. In Rodriguez, H.L., Quarantelli, E.L. & Dynes (Eds.), *Handbook of disaster research*. NY: Springer; Tobin-Gurly, J. & Enarson, E. (2013). Gender. In Thomas, D. et al. (Eds.) *Social vulnerability to disaster, 2nd ed*. Boca Raton: CRC, Taylor and Francis; Houghton, R. (special issue Ed.), March 2009, *IJMED*; Enarson, E. & Pease, B., ms under development, *Men, Masculinities, and Disaster*; Katz, R. & Mauery, R. (2010). Women and public health emergency preparedness. *Women's Health Issues* 20, 3–6.



What GBA suggests about disaster public health
Applications in emergency planning

[2] What we know & how to use it

Research areas

- Mortality & morbidity
- Pre-disaster gender health status
- Specific vulnerabilities in specific populations
- Risk perception
- Gender patterns in access to/utilization of health care
- Gendered health services in disasters, e.g. emergency relief, shelter, temporary accommodation



- Gender norms of self-care, health behaviors
- Gender division of labor in health care at different levels, e.g. professionally, institutionally, community, family
- Post-disaster gender health needs: physical, mental, reproductive
- Short- and long-term health and safety issues
- New needs, new services, new users and new providers

Selected factors increasing men's risk

- Gendered division of labor (daily routines in space/time)
- Gender norms, e.g. protective, autonomy
- Contingent family and kin networks
- Pre-disaster health conditions & practices , e.g.
 - heart disease, accident, homelessness, PTSD (veterans), HIV/AIDS, substance abuse
- Post-disaster effects, e.g.
 - Increased male-on-male interpersonal violence
 - Injury (responders, first responders, reconstruction)
 - Self-harm

Selected factors increasing women's risk

- Gendered division of labor may put women in hazardous places and roles; and gender inequalities, e.g. economic dependence, single mothering, political voice
- Pre-disaster health conditions, e.g.
 - Temporarily disabling (late pregnancy, postpartum)
 - Chronic health issues (hypertension, diabetes, asthma)
 - Dementia
 - Gender-based violence
- Post-disaster effects , e.g.
 - Physical, e.g. house-bound exposure to mold
 - Psychosocial (stress, depression)
 - Miscarriage, unintended pregnancy, STD, urinary infection
 - Sexual assault/increased domestic violence

Sexual minorities

- Stigmatized sexualities
 - Lesbians and gay men: barriers to reporting, access to health care services in shelters, higher exposure to violence
 - Pre-disaster mental health concerns/high stress living, e.g. teens on the street/runaways
- Transgendered individuals
 - Continuity of care, e.g., specific medical regimes, medical services
 - Violence prevention (increased risk in disaster contexts)
 - Support systems disrupted

Dominey-Howes, D., Gorman-Murray, A., McKinnon, S. (2014). Queering disasters: on the need to account for LGBTI experiences in natural disaster contexts. *Gender, Place and Culture*, 21(7), 905-918; David, E. & Enarson, E. (Eds.), *The women of Katrina: How gender, race, and class matter in an American disaster*. Nashville: Vanderbilt; Roeder, L. (Ed.) (2014). *Issues of Gender and Sexual Orientation in Humanitarian Emergencies*. NY: Springer.

Related issues

- Gendered health behaviors
- Statistical over-representation in high-risk groups, e.g. low-income persons living with disabilities, seniors, single parents, low-income, residence in public housing, assisted living, long-term care, shelters
- Gender differences in accessing health care services
- Gendered health professional roles and support
- Feminized post-disaster health care systems
 - More female health care providers, and more female volunteers
 - More women in caregiving professions/occupations
 - More women in paid home health care roles and family care

Community health
Extreme heat events
Gender-based violence
Disaster mental health
Resilience networks



[3] Close up: selected examples

Community health:

BSE (“mad cow”) in the Canadian prairie

- Community: loss of male spaces, e.g. grain elevators; isolation of mothers and children (reduced income for transport, recreation, social life); depopulation, disrupted safety net, increased stress, longer commutes, overwork, increased substance abuse, marital conflict
- Some gender patterns, e.g.
 - Women: depression up, DV up, domestic & off-farm work up
 - Men: withdrawal, depression, suicide reported, migration

Two gender stories in extreme heat

The Chicago heat wave: men hard hit

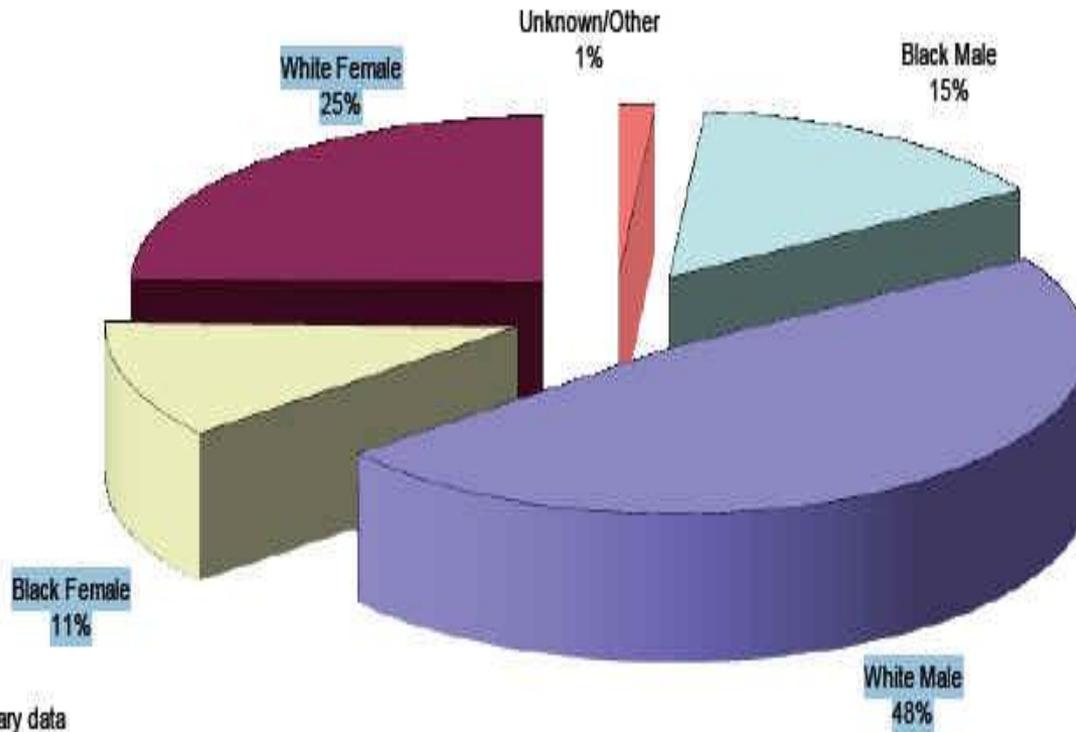
- Men were 55% of 521 heat-related deaths recorded in one study (MMWR, 1995)
- 80% of 56 unclaimed bodies were men (Klinenberg, 2002)
- African American men were especially susceptible vs. Latino men (Klinenberg, 2002)

The Paris heat wave: women hard hit

- Women were 77% of 848 deaths in a sample of low-income residents receiving public assistance (Bellmin et al. 2007)
- Women were 69% of a sample of 841 heat-affected hospital patients, and 81% of the non-survivor sample one month later (Davido et al. 2006)
- Women's mortality rate was 15% higher from the age of 55+ in a sample of 942 home deaths (Canoui-Poitrine et al 2006)

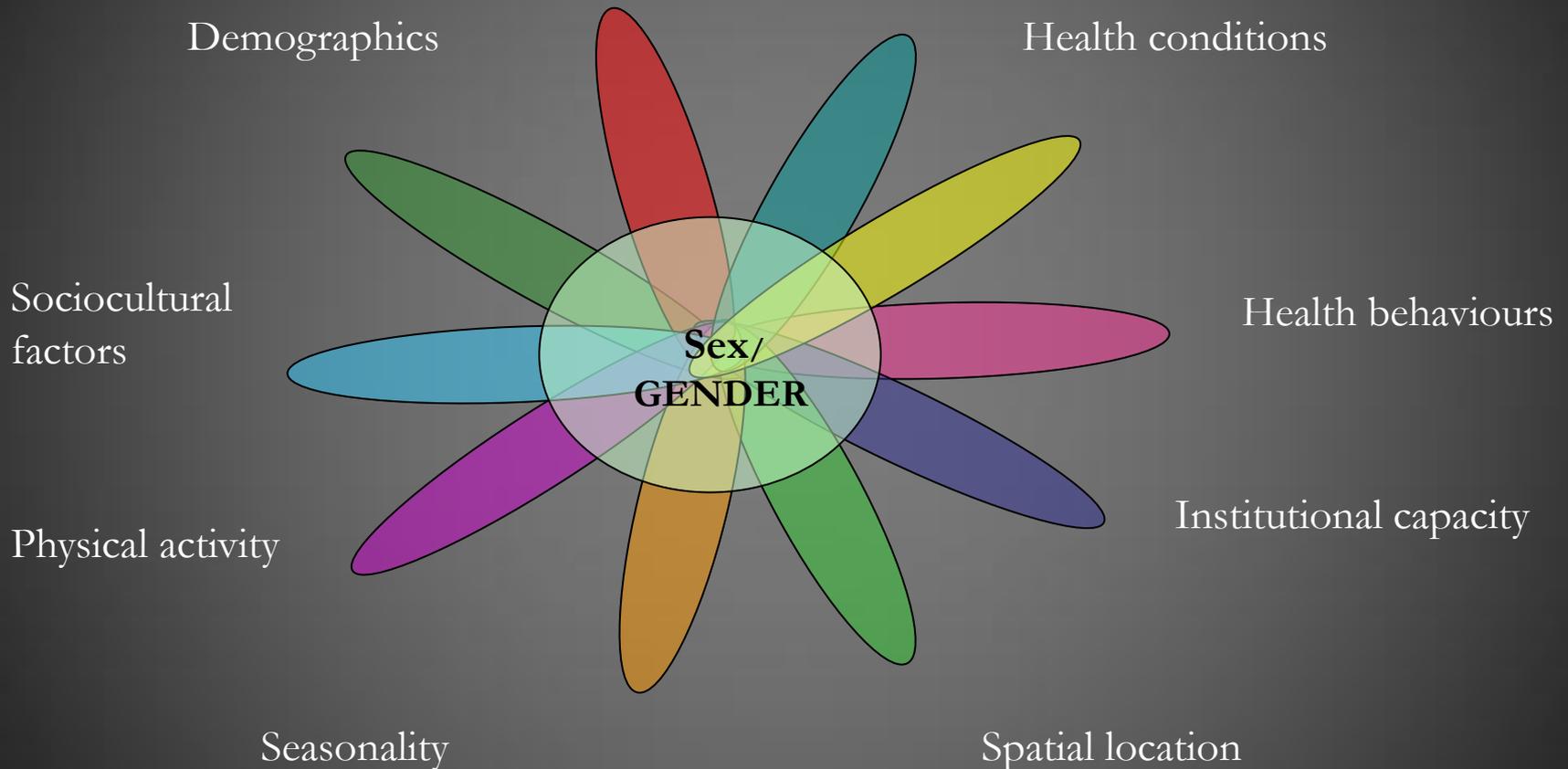
“If the Chicago victim of 1995 can be characterized as elderly, disabled, black, socially isolated, urban, lower social class and male, in contrast the French victim is elderly, disabled, lower social class and female.” (Ogg 2005: 19)

Hyperthermia Mortality by Race and Sex, Missouri 2000-2013*



<http://health.mo.gov/living/healthcondiseases/hyperthermia/pdf/hyper3.pdf>

Extreme Heat Risk Factors : Gender Dimensions



Domestic violence and sexual assault

- “New” and old abuse
- Root causes vs triggers
- Community health and safety
- Disaster partners?
- Data sources problematic
- Research needs



US data reviewed in Enarson, 2012, *Women Confronting Natural Disaster*; and see National Sexual Violence Center resources: <http://www.nsvrc.org/projects/preventing-sexual-violence-disasters/nsvrc-resources-sexual-violence-disasters> ; among others, Larrance, R., Anastario, M., & Lawry, L. (2007). Health status among internally displaced persons in Louisiana and Mississippi travel trailer parks. *Annals of Emergency Medicine*, 49, 590–601; Enarson, E. (2012), Does violence against women increase in disasters? <http://usgdra.org/wp-content/uploads/file/Does%20VAW%20Increase-july2012%20-ee.pdf>

Disaster mental health

- PTSD generally higher for women
 - Role conflict/overload, secondary stress in disaster-relevant professions & occupations, new post-disaster work, family stressors, gender violence, re-traumatization
 - Marriage a positive factor for men, but not for women
- PTSD high among male responders
 - Trauma exposure, health effects, disability, livelihood loss, lack of support



Among others, see Norris, F., M. Friedman, P. Watson, C. M. Byrne, E. Diaz, and Kaniasty. 2002. 60,000 disaster victims speak: Parts 1 and 2. *Psychiatry* 65 (3), 207-260; Tolin, D. & Foa, E. (2006). Sex differences in trauma and posttraumatic stress disorder: A quantitative review of 25 years of research. *Psychological Bulletin* 132 (6), 959-992

Resilience

- Women's stronger kin & family networks promote protective action, shared resources, trusted leadership
- But social capital can also increase demands/stress
- Men's more work-based social networks offer critical life skills, knowledge, ability and resources vital in disasters



Among others, see Litt, J., Skinner, A & Robinson, K. (2012). The Katrina difference: New vulnerabilities in women's poverty in present day New Orleans. In E. David & E. Enarson (Eds.) *The women of Katrina.*; Peek, L. & Weber, L. (2012). *Displaced: Life in the Katrina diaspora.* Austin: University of Texas; Ganapati, N. (2012). In good company: Why social capital matters for women during disaster recovery. *Public Administration Review* 72(3), 419–427.

A few examples—and please add to this list

[4] Promising practices

Discouraging patterns persist

- Much stronger US gender-sensitive emergency health approaches globally than domestically
- Misreading of ‘gender’ as ‘women’ (universalized)
- Public information sites (e.g. gov’t websites) may address pregnancy/maternal care but generally ignore more general gender health issues in crisis (his/hers)
- Despite the good record of health research around sex/gender, most disaster health and vulnerability research displays
 - lack of disaggregated data for basic research
 - lack of basic info about the population or sample
 - shallow or absent GBA

“Several months after completing my interviews with female Katrina evacuees, I gave a talk on gender issues in disasters at the Partners in Emergency Preparedness Conference in Seattle, Washington. I saw this conference as an opportunity to get my message to every Federal Emergency Management Association (FEMA) representative I could locate. Two FEMA staffers attended my session and asked how other foreign nations and NGOs handle female-specific relief efforts. I explained that most large NGOs and government aid outreaches have gender officers and gender-awareness programs, adding that the position of gender officer was not my ingenious idea but that gender mainstreaming has long been considered a necessity in developing nations. These officers are responsible for implementing “gender awareness” across a program’s framework. I then suggested that it would be wonderful to see FEMA implement gender awareness through-out their policies and procedures. One of the staffers, , a man, said, with determined look, that yes, FEMA should consider gender-based policies and he would put me in touch with the national disability coordinator of FEMA. To which I could only reply, “But I’m not disabled—I’m female” (Richter, 2009, p. 25).

“Interestingly, pets are sometimes included as vulnerable populations for planning purposes, as are undocumented immigrants and non-English speakers. Few, if any, preparedness plans look specifically at the gender-specific issues of women in the context of how they are affected by, and how they can best respond to, public health emergencies.”
(Katz & Mauery, 2010, p 4.)

More promising

- Guidelines for emergency relief, e.g. WHO, UNFPA, UNISDR, Sphere standards, and related
- New lines of research
- Reaching new communities of practice
- Advocacy and resources, governmental and NGOs
- US and global

Analysis of resilience (and vulnerability)

- Harville, et al., (2009). Resilience after hurricane Katrina among pregnant and postpartum women. *Women's Health Issues*, 20(1), 20-7.

Abstract: Although disaster causes distress, many disaster victims do not develop long-term psychopathology. Others report benefits after traumatic experiences (posttraumatic growth). The objective of this study was to examine demographic and hurricane-related predictors of resilience and posttraumatic growth . . . We interviewed 222 pregnant southern Louisiana women and 292 postpartum women. . . Many pregnant and postpartum women are resilient from the mental health consequences of disaster, and perceive benefits after a traumatic experience.

After the Crisis (SAMHSA)

- “With support from [SAMHSA](#), Policy Research Associates, and the [National Center for Trauma Informed Care](#) launched the *After the Crisis* initiative following Hurricanes Katrina and Rita. The key activities of the initiative were focused on the development of technical assistance strategies and support networks that are dedicated to addressing the long term mental health and trauma needs of disaster survivors
 - [After the Crisis: Trauma and Retraumatization Issue Brief](#)
 - [Victims of Violence in Times of Disaster or Emergency](#)
 - [After the Crisis: Victims of Violence Issue Brief](#)

Global guidelines potentially used in US

- UN resources: Among a great many gender-aware health and safety planning guides, see
 - http://www.who.int/gender/other_health/en/genderdisasters.pdf
 - http://www.who.int/violence_injury_prevention/publications/violence/violence_disasters.pdf
 - <http://www.interaction.org/search/node/gender>
 - <http://www.interaction.org/document/iasc-gender-handbook>
 - <https://www.unfpa.org/emergencies/manual/4.htm>

Guidelines for gender-aware disaster care

- ❑ Create high gender visibility by seeking input throughout all stages of disaster planning, communication, management and relief efforts;
- ❑ Provide a private, enclosed OB/GYN care/health assessment area on site, as well as a private, enclosed breastfeeding area;
- ❑ Ensure daily prenatal nutritional advocacy (check-ups) for all pregnant and lactating women;
- ❑ Provide prenatal vitamins (folic acid and ferrous sulfate supplements);
- ❑ Offer breastfeeding supplies (pumps, pads, etc.) and on-site (or readily available) lactation consultants;
- ❑ Have over-the-counter antifungal yeast infection products available; and
- ❑ Offer a wide variety (in size) of clean female undergarments
- ❑ Retain several sterile delivery kits and/or emergency delivery supplies (infant bag-mask, blankets, sterile cord clamps, etc.);
- ❑ Provide pregnancy testing supplies and/or services;
- ❑ Provide a range of feminine hygiene products (sanitary pads and tampons), as well as adult incontinence products;
- ❑ Provide a variety of contraception (including “morning after” pills, condoms and oral contraception choices);
- ❑ Make provisions for rape intake (rape kits), as well as on-site (or readily accessible) sexual/domestic violence counselors;
- ❑ Make sexually transmitted infection (STI) treatments available

Richter, R. & Flowers, T. (2010). Gender-aware disaster care: Issues and interventions in supplies, services, triage and treatment. *International Journal of Mass Emergencies and Disasters* 28 (2), 207-225; and see podcasts of GDN Webinar Series with EPI Global: www.epiglobal.org/upcoming-events

Assessing post-event reproductive health

■ Reproductive Health Assessment after Disaster (RHAD) Toolkit

“A public domain tool designed to assess the reproductive health needs of women aged 15-44 affected by natural and man-made disasters. Questionnaire topics include safe motherhood, infant care, family planning, gender based violence, health and risk behaviors, and family stressors and service needs. The data gathered will promote and enhance evidence-based local programs and services to improve the reproductive health of women and their families.”

<http://cphp.sph.unc.edu/reproductivehealth/>

Pregnancy/postpartum care in crisis

- CDC Division of Reproductive Health (DRH) Emergency Preparedness and Response Program
- Resources developed include indicators for assessing emergency health risk for pregnant women, postpartum women, and infants.

“CDC’s Division of Reproductive Health (DRH) has a history of preparing for and responding to the needs of women and infants before, during, and after disaster events. This includes working in settings where disasters have occurred and developing emergency care information for pregnant women and their health care providers.”

http://www.cdc.gov/reproductivehealth/Emergency/PDFs/PostDisasterIndicators_final_6162014.pdf

<http://www.cdc.gov/reproductivehealth/Emergency/#c>

Issue identification in public health fields

- Bennett, T. (2005). Women's health: after the fall. *Women's Health Issues* 15, 237–239.
- Keeney, G. (Ed.) (2004), Disasters happen: Would you know what you can do? Special issue, *Journal of Midwifery & Women's Health*, 49(S1)
- Prenatal Maternal Stress Research Group, Douglas Mental Health University Institute, McGill University, 2009 conference on *Climate change, disasters, women, and their children*:
<http://www.mcgill.ca/projetverglas/files/projetverglas/conference-schedule-prenatal-stress.pdf>
- *Just ask: A conference on men's health after disaster*, Women's Health Goulburn North East & Monash University, Melbourne, 2013:
http://www.whealth.com.au/documents/work/about-men/Just-Ask-Conference-2013_Invitation-Registration.pdf
- And many more....

Mahila Partnership (US and global)

- Mahila Partnership is a non-profit organization that addresses the health and hygiene needs of women and girls following disasters.
<http://www.mahilapartnership.org/about.php>
- A recent US project: “In coordination with Pinellas County Health & Human Services Council and the Juvenile Welfare Board, Mahila Partnership has served as an advisor on maintaining continuity of operations of essential services to those in the community with the greatest needs in a post-disaster setting.”
- Voluntary disaster response with a gender/health focus:
<http://www.mahilapartnership.org/response.php>
- Gender and shelter considerations doc (and related links):
http://www.mahilapartnership.org/downloads/Mahila_Gender_Sensitive_Disaster_Response.pdf

Proactive state action (Florida)

SURVIVE DOMESTIC VIOLENCE

AFTER the Hurricane!



SURVIVE DOMESTIC VIOLENCE

Domestic Violence is One Disaster... ...WE CAN PREVENT!

**SAFETY PLAN For DOMESTIC VIOLENCE
What is a SAFETY PLAN?**

A safety plan can help prepare you and reduce the risk of physical harm if you plan to leave your relationship. It helps you brainstorm options that are available to you as well as what to do in case of an emergency. Having a plan can also help reduce the impact of the violence, even if you decide to remain in the home. Safety plans evolve as your situation changes, so update your plan as necessary. For example, if your neighborhood is ordered to evacuate due to a hurricane warning, consider how your safety may change if you have to go to a hurricane shelter. This may be a safe time for you to attempt to go to one of Florida's 41 domestic violence centers. Some steps you can take are the following:

- Memorize or make a list of telephone numbers — friends, relatives, colleagues, or of a local program that can help.
- Prepare a suitcase with clothes, important documents and things you, your children, and/or pets may need. Leave it with someone you trust, a neighbor, a friend, or a relative. You may refer to it as your "Hurricane" or "Natural Disaster" preparedness bag if you must leave it at home.
- Keep money, and an extra set of car keys and other essential items in a safe place.
- Prepare your pets if you plan to take them with you. Have their vaccinations up to date and verification available. Realize Florida disaster shelters cannot take pets; however, domestic violence center staff are trained in how to keep your pet(s) safe. Call the Florida Domestic Violence hotline or local center for details: 1-800-500-1119.
- Teach your children to use the telephone to contact the police in case of an emergency.
- Keep an extra set of coins (or pre-paid phone card) to make calls.
- Get a 9-1-1 cell phone from your local domestic violence center.
- Memorize Florida's Domestic Violence Hotline: 1-800-500-1119.

• Call the hotline for information regarding your local domestic violence centers. Call an advocate to assist you with creating a safety plan and/or a lethality assessment.

• Call Florida's Domestic Violence Legal Hotline: 1-800-500-1119, prompt 3 regarding legal options.

What are some options you may consider?

- Your safety and that of your children and/or pets is essential.
- Call the police in an emergency.
- File a police report about the violence.
- Call the domestic violence hotline to talk, get information or ideas, find a shelter, or make a safety or escape plan.
- Have the abuser ordered by the court to stay away from you by getting an Injunction for Protection.
- See a doctor for injuries (and consider having him/her write down what caused the injuries).
- Talk to a friend, family member, neighbor or someone else for support and ask for help.


The Governor's Campaign for a
Violence Free Florida!
Ending Abuse, Improving Lives.

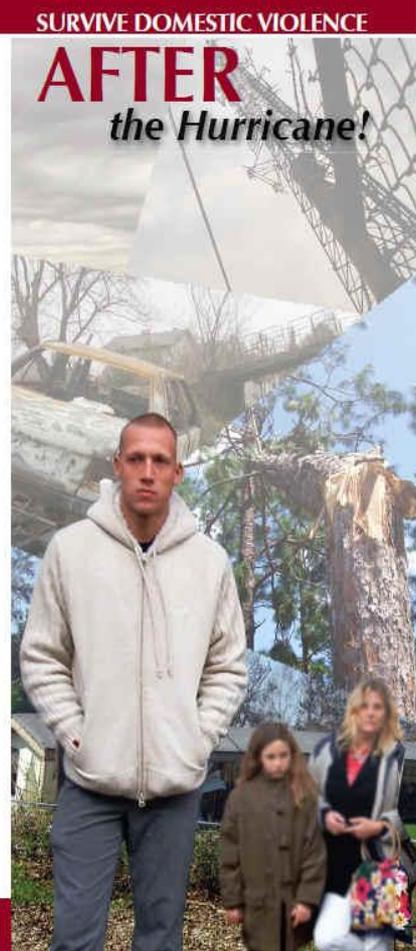
Florida's Domestic Violence Hotline: 1-800-500-1119
Florida Coalition Against Domestic Violence
425 Office Plaza Drive • Tallahassee, Florida 32301
PH: 850-425-2749 • Web: www.foadv.org

 FLORIDA DEPARTMENT OF
CHILDREN & FAMILIES

 FLORIDA COALITION
AGAINST DOMESTIC VIOLENCE

SURVIVE DOMESTIC VIOLENCE

AFTER the Hurricane!





Focus areas and needs
What would you add?

[5] Research gaps



- Mortality: but rarely related to gender id/gender relations in highly developed countries
- Preparedness: but little on effectiveness (outcomes)
- PTSD: but little on coping strategies, service delivery, outreach, social context, etc., gender dimensions
- Climate: health impacts more than evaluation research on promising practice to support women/men thrust into more intense informal/formal health care work
- Community health: but little on antiviolence work
- Capacity: but rarely GBA, e.g. in capacity & disability work
- Surge capacity/health responders: but rarely using GBA, and lack of research on gender and personal protection (PPE)

- Age: but rarely cross-tabulated by sex or otherwise integrated; rarely GBA in 'youth' or 'senior' studies
- IPV: but too dependent on service stats, little longitudinal work, evaluation research needed
- Suicide/self harm: but gender-aware prevention efforts rare
- Impact and response: far too little on short/long-term recovery among diverse groups in diff contexts
- Men's health and safety: under-researched, e.g. around reproductive health, trafficking, displacement, livelihood, support systems, male friendships in crisis
- Participatory evaluation of 'promising practice' needed



Emergency health care 'as if gender mattered'

[6] Action steps

Using GBA: general approach

- Evaluation criteria: GBA in disaster health research
- GBA analysis as core competency for health planners
- Gender modules for training and teaching
- Gender/diversity in emergency health planning teams
- Outreach to community gender & health experts
- Identification of capacities as well as vulnerabilities
- Gender-targeted risk communication
- Collaboration with family/community health workers
- Gender-inclusive planning, training, exercising
- Prioritize health & safety preparedness in communities

Targeted areas for action

- Among other core activities of emergency management and health emergency planning:
 1. Hazard and risk assessment
 2. Trend analysis
 3. Capacity mapping
 4. Consultation/partnerships
 5. Public awareness
 6. Risk communication
 7. Training
 8. Response
 9. Sheltering
 10. Recovery

[1] Hazard and risk assessments should

- include sex-specific data on the exposure of women/men to specific hazards, e.g.
 - extreme heat/cold
 - drought, biological hazards, agricultural crises (bse)
 - pandemic
 - toxic contaminants, explosions, intentional attacks
- gender based analysis should be applied to understand how women's/men's everyday routines expose them to potential hazards in specific contexts

[2] Gender patterns and trends relevant to health vulnerability should be identified and mapped, e.g.

- ❑ income, poverty, employment, home-based work
- ❑ race/ethnicity, culture/subculture
- ❑ migration, immigration
- ❑ household size and structure
- ❑ home language use, literacy, education, digital access
- ❑ disabilities producing functional limitations in crises
- ❑ dependence on social services/safety nets
- ❑ political voice, representation

[3] Sex and gender factors increasing capacity to respond should also be identified, e.g.

- ❑ women's nonprofit organizations knowledgeable about high risk women and girls, boys and men, including those living at risk of violence
- ❑ women's grassroots networks, groups and organizations working with high-risk women & their families
- ❑ lead health services serving veterans
- ❑ women's and men's life experiences in adversity
- ❑ gendered life skills, e.g. in family based health and wellness
- ❑ men's/women's traditional roles/skills in health and care professions

[4] Women leaders, women's NGOs, women's and men's health experts, women's and community clinics should

- be consulted for help locating this information
- assist through participatory action research, e.g. to collect missing data
- participate in community-wide risk assessment projects
- be enabled to undertake specific risk assessments, e.g. of emergency health planning in child care centers or through networks serving LGBTQ and disabilities communities, Native American, new immigrant communities, etc.

- [5] Public awareness and preparedness campaigns should
- ❑ include women and women's groups among key stakeholders for emergency planning
 - ❑ specifically address male subpopulations at risk pre-disaster, e.g. PTSD veterans
 - ❑ engage with women as subject experts on vulnerability and capacity
 - ❑ specifically include diverse groups of women and girls/boys and men in community exercises
 - ❑ target high-risk women and the community groups serving them to ensure organizational preparedness at the grassroots
 - ❑ work with men's community organizations , e.g. faith-based, service, professional, advocacy, youth/recreation, work-based

[6] Forecasts, warnings and other risk communication campaigns should

- ❑ be informed by research on gender and risk perception and risk tolerance
- ❑ target women/men respectively to reach those most at risk of a particular hazard or in a particular place
- ❑ be designed with input from gender & communication experts
- ❑ be assessed for possible gender bias in images/language used
- ❑ be promoted through women's organizations and networks, and men's service and professional groups, youth groups for girls & boys

[7] Emergency health training should

- enable all health providers (male/female) to reach out to high-risk women and men, boys and girls in disasters
- include gender modules, e.g. patterns of post-disaster mental health for women/men; essential personal hygiene, maternal care, & reproductive health concerns; mitigating disaster-related IPV; men working with men; ways to collaborate with women and community health providers
- accommodate women's family & work lives, transportation needs, and safety concerns as well as men's
- be conducted by diverse and mixed-sex teams and/or respected informal health providers, e.g. *promotoras* in Latino communities
- draw on local knowledge of culturally-specific gender relations in high risk areas, e.g. indigenous communities at risk of fire

[8] Emergency health care response should

- ❑ reflect likely patterns of surge response for women & men
- ❑ protect the health and safety of emergency health providers, including through education and training on gender risk
- ❑ support women/men with family roles through the crisis, e.g. family communication systems, child care support, rotations
- ❑ minimize health effects on first responders (uniformed and community/household)
- ❑ recognize women-only spaces such as shelters as life safety issues , e.g. during evacuation
- ❑ include psychosocial outreach to identify women/men at high risk including women living with violence, men in high-stress roles

[9] Shelters & temporary accommodations should

- ❑ be designed with women's safety paramount
- ❑ include women-only spaces for mutual support, privacy (e.g. breast feeding), and organizing around unmet needs
- ❑ prioritize women as single heads of households, especially women with large families; support all single parents
- ❑ support teenaged boys, fathers, and grandfathers in care roles
- ❑ include safe play space, respite care for caregivers and other support systems
- ❑ be located near public transport & common work sites for women as well as men
- ❑ be designed and evaluated with input from marginalized populations including LGBTQ as well as age, ability and ethnic groups

[10] Post-disaster recovery programs should

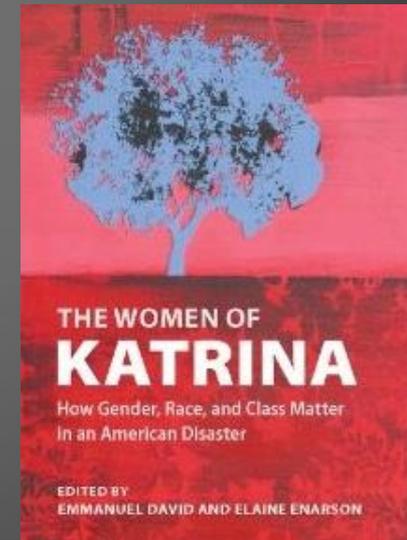
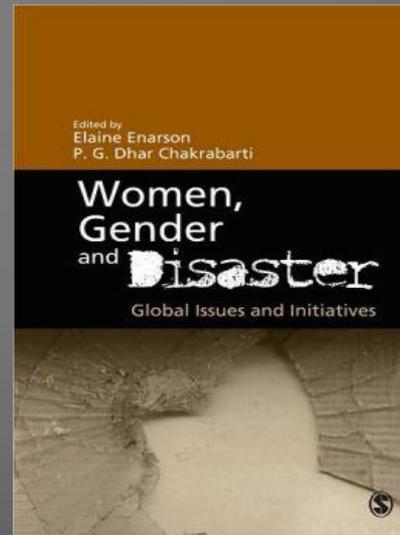
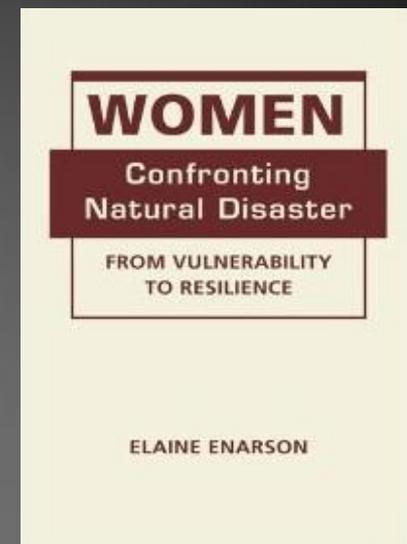
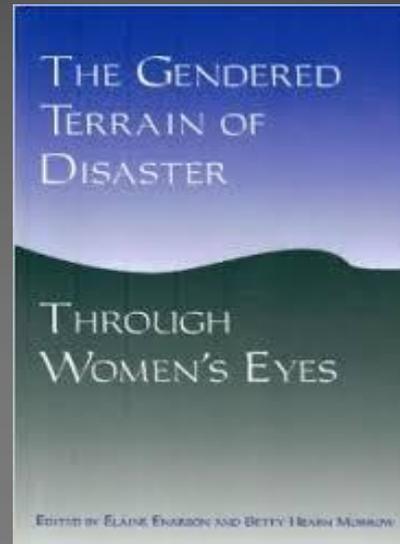
- ❑ build on women's community knowledge of public health
- ❑ take informal family health care responsibilities into account
- ❑ target community based women's services and health clinics
- ❑ equitably assist women working at home, women earning income in the informal economy, women part-time workers
- ❑ prioritize the recovery of home health care and other community based health services
- ❑ be designed with input from local women leaders and women's organizations including women's health experts
- ❑ reflect health constraints on men's & men's return to employment and need for income/livelihood

Windows of opportunity—before disasters

- Planning ahead for emergency health service systems which
 - are gender balanced and diverse with respect to ethnic, age, ability, sexuality, & other difference among women & men
 - include all actors in health emergencies, including midwifery, paraprofessionals, wellness, shelter professionals as well as recognized emergency health professionals active in disasters
 - reflect female- and male-dominated health and community care practitioners as fully as possible
 - strive to engage women & men equally in all the agencies contributing to the national disaster public health care system
 - prioritize planning to “care for the caregivers” and for all kinds of “responders”

Thank you!

Looking forward to your thoughts—and please stay in touch: enarson@gmail.com



Selected websites

- ❑ Gender & Disaster Network www.gdnonline.org
- ❑ Gender & Disaster Sourcebook www.gdnonline.org/sourcebook
- ❑ US Gender and Disaster Resilience Alliance: www.usgdra.org
- ❑ Gender and Climate Change (genCC) www.gencc
- ❑ Global Gender & Climate Alliance www.gender-climate.org/
- ❑ GROOTS/Disaster Watch www.disasterwatch.net
- ❑ International Recovery Platform, Gender resource pages www.recoveryplatform.org/themes_in_recovery/17/gender
- ❑ ISDR, Gender www.unisdr.org/we/advocate/gender
- ❑ Mahila Partnership <http://www.mahilapartnership.org/>
- ❑ Women, Gender Equality, & Climate Change http://www.un.org/womenwatch/feature/climate_change/

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- It is a pleasure to acknowledge how much I have learned from the parallel work of gender and disaster scholars and women's health advocates in the US, Canada, Australia, and globally.
- All photos accessed through the FEMA Photo Gallery, with thanks to subjects and photographers.



First-person narratives drawn from original field work in Grand Forks, ND and East Grand Forks, MN after the 1997 flood of the Red River, and from a study of rural Manitoban couples in the same flood, in southern Manitoba. Reported in Enarson, 2012, *Women Confronting Natural Disaster*

Appendix A: Narratives from a flooded prairie

When you talk about the Red Cross shelters . . . My concern about the women who are in shelter—they're in that shelter because they're in danger. And the RC shelters, those type of shelters, are not safe for them. Their other courses of action tend to be neighbors, friends, family members—who are logical places for the perpetrator of that violence upon them to look for them. . . . They're just going to put 2 and 2 together and say OK, well where is she going to go? (young, Anglo, female, shelter staff)

Enarson, E. (2001). What women do: Gendered labor in the Red River Valley flood. *Environmental Hazards*, 3, 1-18.

I had caught a bacterial infection. . . After about 1 and a half 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 Jerry and Mark about 5 am; both said they would not go. . . It took me until the afternoon on Sat April 19 to convince Jerry that we should leave. All medical services were down, and I didn't want to have to worry about getting him to medical help if he should need it in an area where none was available. Mark refused to go. (middle-aged, Anglo, resident)

Enarson, E. & Scanlon, J. (1999). Gender patterns in flood evacuation : A case study in Canada's Red River Valley. *Applied Behavioral Science Review* 7(2), 103-124.

One lady . . . Her mother was dying of cancer, her sister was dying of cancer, and she had kids, she had a house, they had a flooded basement. Her husband wasn't living there because he had to work someplace else. . . Massive craziness. And she was just strong, and going here at 2, going there at 4, got to be here at 6, got to be home at this time because the kids are going to be home, gotta cook dinner. (young Anglo disaster outreach female)

Enarson, E. (2001). What women do: Gendered labor in the Red River Valley flood. *Environmental Hazards*, 3, 1-18.

They had just taken my dad out of intensive care at 5:30 the night before and they released him to us. Oh! So here I am, signing to my [deaf] sister, signing to my brother, saying 'Go home, pack a suitcase, get whatever you want, we need to leave town.' The sirens are going and we're at an emergency route... My father has emphysema, on 24-hour oxygen. (middle-aged Anglo female, resident)

Enarson, E. (2001). What women do: Gendered labor in the Red River Valley flood. *Environmental Hazards*, 3, 1-18.

But like my husband was telling me this morning, I can't communicate totally in English... These support groups that are springing up are women's. And Hispanic men are saying, "I won't have the support through a woman" It's not machismo or anything, it's just how they're relating... Most of the church outreach and mental health outreach are women. So the women may be better off in this case, because we're used to that talking woman to woman kind of thing. But it may be the men that are hurting more. (middle-aged Latina, resident)

Enarson, E. (2001). What women do: Gendered labor in the Red River Valley flood. *Environmental Hazards*, 3, 1-18.

When the doctor said stress, I couldn't understand it--because I had no stress. But it was really hard coming back. I was happy our home was safe. But the really tough part is knowing people who are coming home and their home has been lost. How do you talk about that?...I wasn't saying too much. I really don't know what to say. It was hard. A lot of the time I had tears coming down my face thinking about them. I couldn't place myself where they were. A lot of the time, people who lost homes were in better financial shape than I was. Even now, thinking back to it, I feel tears in my eyes. (middle-aged Angle male, resident)

Enarson, E. & Scanlon, J. (1999). Gender patterns in flood evacuation : A case study in Canada's Red River Valley. *Applied Behavioral Science Review* 7(2), 103-124.

He is a new kind of mad. He has this
anger in him that I have never seen before.

Davis, K. & Ender, M. (1999). The 1997 Red River Valley flood: Impact on marital relationships. *Applied Behavioral Science Review*, 7 (2), 181-188.

He was not the strong one any more because he had such a difficult time, thinking, not only did he lose his home but his parents' home. And so I had to be the strong one. I still had to take care of my daughter. He did come up [where we evacuated] for a week. . . The first three or four months he was, he stayed away. He was real distant and kind of did his own thing. . . He said the most difficult thing for him was the fact that he is supposed to take care of his family and he had nowhere to bring that family. (young mother, Anglo, resident)

Enarson, E. (2001). What women do: Gendered labor in the Red River Valley flood. *Environmental Hazards*, 3, 1-18.

[He said “]t’s not going to flood. We’re all right.” He just absolutely—and she had a business down in her basement and she wanted to get all that stuff and he just, he refused. . . . And I think when it hit, [he] was very closed. You couldn’t get him to talk. He would go off and walk by himself a lot, just not talk to anyone and I think he felt really guilty that—‘What if I would have done this, we wouldn’t have lost all of our furniture, [her] business.’ (middle-aged Anglo female, resident)

Enarson, E. (2001). What women do: Gendered labor in the Red River Valley flood. *Environmental Hazards*, 3, 1-18.

I spent my time moving stuff upstairs in our house and babysitting and cooking and doing that kind of stuff when I could stand to do anything at all. . . .

Her quilt block for a local flood quilt read:

“Crazy patch was the only choice for this block! My struggle with major depression became overwhelming during the flood and I spent much of the time in hospitals in Fargo.” (middle-aged Anglo female, resident)

Enarson, E. (2001). What women do: Gendered labor in the Red River Valley flood. *Environmental Hazards*, 3, 1-18.

[We] find the men want to get the house back, want to build as soon as they could. And the female was saying “No, wait, there’s going to be a mold/mildew issue health-wise.” We had the wood moisture readers that they could check out thru our office and sometimes we’d have husbands and wives come together and say “OK, tell us what do we do because we’re both arguing with each other.... where a lot of men felt that they personally lost because they couldn’t ’ save their home. They personalized that, and they wanted to get the family back to what they called ‘normal’, quote unquote. (middle-aged Anglo female, social service staff)

Enarson, E. (2001). What women do: Gendered labor in the Red River Valley flood. *Environmental Hazards*, 3, 1-18.

And she was saying that her husband was—she was really concerned about his health. He almost had a heart attack. But he had always been abusive to her son and they moved in with her son for awhile and it got exacerbated and she just didn't know what to do, how to handle it, because she was concerned about her husband's health, she was concerned about protecting her son.... (young Anglo female, shelter staff)

Enarson, E. (2001). What women do: Gendered labor in the Red River Valley flood. *Environmental Hazards*, 3, 1-18.

There's so many things going on, still, with us, that I try to make all the lists that I've always done, and then I don't even look at the other stuff, I just zero in on today. . . And there are some days, you know, I become immobilized and I just have to sit there and can't even do anything because there's *so* many things to do you just don't know where to start. (middle-aged Anglo female, resident)

Enarson, E. (2001). What women do: Gendered labor in the Red River Valley flood. *Environmental Hazards*, 3, 1-18.

In different sectors

Through the disaster cycle

With different capacities

Using diverse strategies

Around shared goals

Appendix B: Steps toward gender-responsive health care in disasters

Leadership from health centers

1. Conduct on-site and gender sensitive awareness sessions with managers and staff to highlight multiple demands on women in emergencies
2. Provide in-house psychosocial support for affected female/male caregivers
3. Assess potential work/family conflicts of staff, develop contingency plans
4. Integrate disaster impact & recovery training into community health training
5. Make peer support for staff/volunteers part of the workplace emergency plan
6. Liaise with women's health services/community agencies
7. Support door-to-door outreach in the aftermath to reach women caring for disaster-affected people in the community
8. Promote neighborhood disaster resilience teams to reach high-risk groups of women and men and their caregivers
 - To increase awareness and preparedness
 - To provide urgent information, e.g. heat alerts, flood alerts
 - To identify relief and recover resources that will be available

Leadership from public health agencies

1. Include gender sensitivity and women's full and equal participation in national standards for emergency management
2. Provide support for governments and partner agencies to mainstream gender into emergency management systems and practices
3. Revise risk communication and awareness materials to identify women and men as high-risk groups differently at risk for post-disaster stress
4. Identify factors increasing psychosocial impacts on men in all risk communication and awareness materials
5. Revise manuals for psychosocial response to include risk factors for women/men based on G&D research
6. Revise public awareness materials on preparedness, impact and recovery to address women and men respectively
7. In national research funding programs, make GBA an evaluation criteria
8. Support gender-sensitive evaluation of current psychosocial resources post-disaster

Leadership from governing authorities & EM

1. Support critical gender review of municipal emergency plans
2. Develop context-specific guides for supporting high-risk women/men
3. Make extended low/no cost psychosocial counseling post-disaster utilizing existing women's health networks and services
4. Include indicators of women's pre-disaster mental health in risk assessments, and tap into the resources of women's grassroots clinics and advocacy groups
5. Include women's health services/community organizations in post-disaster recovery resources contact lists
6. Provide funding for women's/community groups to develop service continuity plans
7. Ensure that women's organizations/health services are included in exercises, scenarios, trainings
8. Augment or develop community plans for caregiver respite programs post-disaster targeting women
9. Increase funds for disaster-related child care for those with extended family responsibilities in impacted areas
10. Contract with local women's groups pre-disaster for post-disaster mental health support for disaster affected women and women caregivers/responders
11. Support research to identify context-specific risk factors for mental health of women/men

Leadership for nonprofit & faith-based orgs

1. Support women responders in emergency shelters and relief agencies, e.g.
 - consultation on disaster mental health with professionals on site
 - child care/dependent care services and support on site
 - domestic violence counseling on site
 - men's mental health outreach teams on site
2. Support women volunteers/staff, e.g.
 - ensure regular communication with family members, regular home visits
 - revise worker self-care manuals to reflect gender differences
 - gender-sensitive stress debriefing for first responders
3. Develop and/or utilize gender-sensitive and culturally-appropriate training resources for staff and volunteers on women, men and disaster mental health
4. Build capacity for gender-balance in psychosocial outreach teams and other outreach programs
5. Develop partnerships with women's health networks and services for consultation, evaluation, research, and advocacy

Leadership from the private sector

1. Include **child/family care** in business continuity plans
2. Develop registries of employees with potential work/family conflicts
3. Develop contingency plans reflecting gender issues in surge capacity
4. Enable **reduced work loads** for disaster affected caregivers
5. Include post-disaster stress counseling for women/men (separately) for staff
6. Provide **continuity of salary post-disaster** as feasible
7. Initiate partnerships to support/develop emergency preparedness in key agencies, e.g.
 - child care centers/senior day cares
 - mental health services serving women/men disproportionately
 - women's clinics, maternal care
 - grassroots organizations working with women
8. Reach women/men through workplace based risk communication and emergency preparedness assistance

Leadership from educators and researchers

1. Collaborate locally to conduct gender sensitive risk assessments that include women, gender, qualitative data, grassroots women's organizations
2. Produce training films/materials on disaster for mental health responders
3. Develop multidisciplinary teaching module on women, men & disaster stress
4. Organize "women's /men's health in disasters" sessions in relevant professional conferences and community workshops
5. Compile and update a registry of counselors knowledgeable about gender and mental health issues in disasters
6. Advocate with government for science-based gender-aware emergency management
7. Develop partnership for participatory action research on caregiver health with employer groups, labor unions, professional associations of nurses, midwives, counselors, teachers, etc.; disability networks; tribal authorities ; immigrant support centers

Leadership from women's & community groups

1. Increase staff and client awareness of hazards, disasters and women's disaster work through in-service trainings
2. Develop and test a tailor-made emergency preparedness plan
3. Network with related community organizations to share services/information/resources
4. Advocate with funders/organizational partners to include disaster work in agency projects and in all mental health programs
5. Support peer learning—field trips and exchanges with women sharing disaster experiences and coping strategies