

## The I-35W Bridge Collapse

### Framing the Issue

They were stuck in Minneapolis traffic on their way home from work. They were bound for the Metrodome to see the Twins play the Royals. They were going to spend time with in-laws, work out, pick up a child from the sitter, teach a folk dancing class, eat at an African restaurant, deliver a truckload of bread to Iowa. Alongside the cars were workers in hard hats, laying down a new surface of concrete on a nondescript 40-year-old highway bridge.

**“It just disappeared; it made no sound whatsoever. It was pretty much like a thud. The next thing I know cars were dropping and there was smoke.”**

*~Louis Rogers,  
whose car was five feet from the  
edge when the bridge collapsed*

Then, at 6:05 PM, the 35W bridge collapsed into the Mississippi River. At that moment, the lives of nearly 200 people were suddenly and irrevocably linked. The 1,097 foot bridge fell into the Mississippi River and onto roadways below, which were packed with rush hour traffic.

Thirteen people were killed as their cars crashed or the water overcame them. One hundred forty-four others suffered cuts, broken backs, crushed legs and other injuries in the cascade of concrete, steel and water. The numbers who carry the wounds in their minds is much larger - the next-of-kin, the witnesses, the rescuers, those who got off the bridge seconds earlier or took a last-minute detour. *(adapted from the Minneapolis Star-tribune)*

### Emergency Response

Emergency calls to 911 began as soon as the bridge collapsed. Legions of rescue workers and volunteers swarmed to the scene and spent hours sifting through wreckage in a frantic search for survivors. Many vehicles were on fire, and people were reported to be floundering in the river. Rescuers rushed to help people escape from cars, which had become trapped in the river.

The Hennepin County Sheriffs Office launched three boats to assist in the recovery effort. Most of the injured were taken to Hennepin County Medical Center, where 25 rooms in the intensive care unit, and 10 operating rooms had been cleared to deal with the expected flood of injured. Ultimately, eleven area hospitals would take in victims of the collapse.

### Aftermath

In the hours afterwards, a center for families searching for those missing was set up at the Holiday Inn Metrodome. By late evening, officials stated that the response had switched from rescue to recovery.

## **Notifying Families**

The University of Minnesota responded through its Medical Reserve Corps (MRC). On Wednesday August 1, 2007 a notice was sent to all MRC members placing them on standby. At 8:00 PM on the same day, the MRC mental health response team was deployed to the University of Minnesota Medical Center. The mental health response team provided assistance until 2:30 AM, both in the Emergency Room, and at the Masonic Cancer Center (where families of the missing had gathered).

### **Psychological first aid:**

Generally includes education about normal psychological responses to stressful and traumatic events; skills in active listening; understanding the importance of physical health and normal sleep, nutrition, and rest; and understanding when to seek help from professional care givers.

The following day, Thursday, August 2<sup>nd</sup>, six mental health team members were deployed to provide psychological first aid and support to families of missing persons. The University of Minnesota MRC worked in partnership with the Red Cross, Minneapolis Police Chaplaincy, and other local mental health agencies at the Family Assistance Center now located at the Holiday Inn.

The MRC continued to staff the Family Assistance Center until August 10<sup>th</sup>. Team members provided one-to-one interventions with family members as well as group defusing with the responders. On August 11<sup>th</sup>, a full ten days after the bridge had collapsed, the Family Assistance Center was closed.

## **Mental Health - A New Challenge in Emergency Response**

Mental health is often overlooked when planning for emergencies. However, the mental health of all people involved in a disaster, both victims and rescuers, is a serious concern. The story of the I-35W bridge collapse is a mental health success story. Mental health teams were prepared and ready to respond when the call for help came.

*Guiding Principles (It is helpful to keep these points in mind when preparing for or responding to a disaster.)*

- No one who experiences a disaster is untouched by it.
- Most people pull together and function during and after a disaster, but their effectiveness is diminished.
- Mental health concerns exist in most aspects of preparedness, response and recovery.
- Disaster stress and grief reactions are “normal responses to an abnormal situation.”
- Survivors respond to active, genuine interest and concern.
- Disaster mental health assistance is often more practical than psychological in nature (i.e. offering a phone, distributing coffee, listening, encouraging, reassuring, comforting).

- Disaster relief assistance may be confusing to disaster survivors. They may experience frustration, anger, and feelings of helplessness related to Federal, State, and non-profit agencies' disaster assistance programs. They may reject disaster assistance of all types.

There are also several guidelines for assuring the health of rescue workers during an emergency.

- Develop a "buddy" system with a coworker.
- Encourage and support your coworkers.
- Take care of yourself physically by exercising regularly and eating small quantities of food frequently.
- Take a break when you feel your stamina, coordination, or tolerance for irritation diminishing.
- Stay in touch with family and friends.
- Defuse briefly whenever you experience troubling incidents and after each work shift.

Most people who are coping with the aftermath of a disaster are normal, well-functioning people who are struggling with the disruption and loss caused by the disaster. They do not see themselves as needing mental health services and are unlikely to request them. This is why disaster mental health workers must go to the survivors and not wait, expecting that survivors will come to them. A considerable amount of psychological support can occur informally over a cup of coffee. (*Field Manual for Mental Health and Human Service Workers in Major Disasters*)

## **Disease Outbreaks and Mental Health**

In addition to the mental health of rescue workers during a disaster, there has also been an increasing need to address the mental health of medical professionals during a disease outbreak. Natural infectious disease outbreaks can take an immense emotional toll on all healthcare workers. In the veterinary profession, one principle of disease eradication has often been mass depopulation campaigns. During the 2001 Foot and Mouth disease outbreak in the United Kingdom, some veterinarians were involved in the depopulation of farms for many days in succession.

Veterinarians are not the only profession affected by natural disease outbreaks. During the 2003 SARS outbreak in Toronto, area hospitals saw an increase in burnout, psychological distress, and post-traumatic stress disorder among workers.

**Social and psychological effects of foot-and-mouth disease depopulation on farmers and farm families in the United Kingdom**

- Farmers and their families
  - Grief over animal loss
  - Distress over animal welfare and care
  - Loss of sense of control
  - Legislative and personal isolation
  - Overwhelming financial problems
  - Increased tendency to suicide
- Trauma to children
  - Witnessing slaughter of stock
  - Witnessing parental distress
- Depopulation (Cull) Workers
  - Working with distraught people
  - Long hours and hard conditions

**Adverse outcomes in Toronto healthcare workers following the SARS epidemic**

- High burnout
- High psychological distress
- High post traumatic stress

Since the SARS outbreak:

- Less face to face contact with patients
- Decreased work hours
- Increased smoking/drinking alcohol

**Public Health Response to the Issue: Discussion Questions****The issue**

- What are the essential elements of this issue?
- What public health problem does this issue raise?
- What are the psychosocial aspects of public health for this issue?
- What are the competing risks to be considered?
- What is the role of the public in this issue?

**The team**

- Why does this issue call for a trans-disciplinary public health team?
- What knowledge, skills and experience do you bring to addressing this problem?
- What frames your perspective on this issue?
- What knowledge, skills and experience do you need to address this problem and where can you find that?
- What other perspectives might be useful in addressing this problem?
- What skills, knowledge, and experience do you think are at the table now?

## Reading assignment

Each student should review at least one additional resource that addresses this issue. The group should decide who will review each resource, so that there is not overlap. The resources may come from the list below or from an independent search. Bring a copy of your resource if possible.

## References

### Web pages:

Coping with a disaster or traumatic event: Trauma and disaster mental health resources  
[http://emergency.cdc.gov/mentalhealth/info\\_responders.asp](http://emergency.cdc.gov/mentalhealth/info_responders.asp)

Disaster Mental Health for Responders: Key Principles, Issues and Questions  
<http://emergency.cdc.gov/mentalhealth/responders.asp>

National Center for Post-Traumatic Stress Disorder  
[http://www.ncptsd.va.gov/ncmain/healthcare/fact\\_sheets/treatment/index.jsp](http://www.ncptsd.va.gov/ncmain/healthcare/fact_sheets/treatment/index.jsp)

Field Manual for Mental Health and Human Service Workers in Major Disasters  
<http://mentalhealth.samhsa.gov/publications/allpubs/ADM90-537/Default.asp>

### Additional resources:

“First Responders: Mental Health Consequences of Natural and Human-Made Disasters for Public Health and Public Safety Workers” Annual Review of Public Health Vol. 28: 55-68 David M. Benedek, Carol Fullerton, and Robert J. Ursano.

“Acute Stress Disorder, Posttraumatic Stress Disorder, and Depression in Disaster or Rescue Workers” Am J Psychiatry 161:1370-1376, August 2004, Carol S. Fullerton, Ph.D., Robert J. Ursano, M.D., and Leming Wang, M.S.

“The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital” CMAJ May 13, 2003; 168 (10) Robert Maunder, Jonathan Hunter, Leslie Vincent, Jocelyn Bennett, Nathalie Peladeau, Melyn Leszcz, Joel Sadavoy, Lieve M. Verhaeghe, Rosalie Steinberg and Tony Mazzulli.

“Psychologic first aid and veterinarians in rural communities undergoing livestock depopulation” Journal of the American Veterinary Medical Association September 1, 2007, Vol. 231, No. 5, Pages 692-694. Kenneth E. Nusbaum, James G. W. Wenzel, George S. Everly Jr.

“Long-term Psychological and Occupational Effects of Providing Hospital Healthcare during SARS Outbreak” Emerging Infectious Diseases Volume 12, Number 12, December 2006 1924-1932.

<http://www.cdc.gov/ncidod/eid/vol12no12/06-0584.htm>

Investigative Report to Joint Committee to Investigate the I-35W Bridge Collapse.  
[http://www.commissions.leg.state.mn.us/jbc/GPM\\_Report/InvestigativeReport.pdf](http://www.commissions.leg.state.mn.us/jbc/GPM_Report/InvestigativeReport.pdf)

I-35 W Bridge Collapse and Response  
[http://www.usfa.dhs.gov/downloads/pdf/publications/tr\\_166.pdf](http://www.usfa.dhs.gov/downloads/pdf/publications/tr_166.pdf)