

July 2011

## Peer Support and Recovery From Limb Loss in Post-conflict Settings

Cameron Macauley

*Center for International Stabilization and Recovery at JMU (CISR)*

Marcia Townsend

Melissa Freeman

Brent Maxwell

*Fathom Creative*

Follow this and additional works at: <https://commons.lib.jmu.edu/cisr-journal>



Part of the [Other Public Affairs, Public Policy and Public Administration Commons](#), and the [Peace and Conflict Studies Commons](#)

---

### Recommended Citation

Macauley, Cameron; Townsend, Marcia; Freeman, Melissa; and Maxwell, Brent (2011) "Peer Support and Recovery From Limb Loss in Post-conflict Settings," *The Journal of ERW and Mine Action* : Vol. 15 : Iss. 2 , Article 6.

Available at: <https://commons.lib.jmu.edu/cisr-journal/vol15/iss2/6>

This Article is brought to you for free and open access by the Center for International Stabilization and Recovery at JMU Scholarly Commons. It has been accepted for inclusion in Journal of Conventional Weapons Destruction by an authorized editor of JMU Scholarly Commons. For more information, please contact [dc\\_admin@jmu.edu](mailto:dc_admin@jmu.edu).

# Peer Support and Recovery from Limb Loss in Post-conflict Settings

In this article, the authors describe an unprecedented study on peer-support services for landmine survivors and victims of explosive remnants of war based on the strategic approach implemented by Survivor Corps, in which survivors were trained to provide psychosocial assistance to other survivors. The study's methodology is thoroughly explained and analyzed by the authors.

by Cameron Macauley [ Center for International Stabilization and Recovery ], Marcia Townsend [ Independent Consultant ], Melissa Freeman [ Independent Consultant ] and Brent Maxwell [ Fathom Creative ]

In the largest study<sup>1</sup> of its kind ever conducted, survivors of injuries by landmines and explosive remnants of war in six countries reported significantly improved perceptions of their own mental and physical health following 12 months of peer support provided by trained outreach workers, as measured by the internationally recognized SF-36<sup>®</sup>. The SF-36 is a 36-question survey designed to measure the subject's self-perceived physical and mental health within eight domains: physical functioning, role limitations due to physical health, bodily pain, general health perceptions, vitality, social functioning, role limitations due to emotional problems, and mental health. Since 1988, the SF-36 has been used in thousands of studies around the world.<sup>2</sup>

Outreach workers were landmine survivors trained in peer counseling who acted as role models to help other survivors, in group settings or through household visits. In addition to counseling, outreach workers helped survivors obtain training, benefits and healthcare through locally available service providers. This unprecedented study is the most extensive survey of landmine/ERW survivors yet completed.

## Background

Between 1997 and 2010 Landmine Survivors Network, later renamed Survivor Corps, operated a peer-support outreach program to provide comprehensive amputee-to-amputee peer support in countries heavily affected by landmines and ERW. LSN/SC's programmatic model provided support to landmine survivors in healthcare, economic opportunity and human rights. The model recognized that peer support would have limited success without addressing barriers and obstacles survivors face in post-conflict settings. LSN/SC's peer-support strategy empowered individual survivors to claim their rights and draw attention to issues of inclusion.

## Problem Statement

Between 1997 and 2009, LSN/SC operated Peer Support networks in Bosnia, El Salvador, Ethiopia, Jordan and Vietnam.<sup>3</sup> A program was also conducted with Iraqi refugees in Jordan. The programs strove "to empower individuals, families and communities affected by landmines to recover from trauma, fulfill their rights and reclaim their lives."<sup>4</sup> The principle methodology was **peer support**, defined by LSN as "encouragement and assistance provided by a trained survivor who has successfully overcome a traumatic experience to another survivor in order to engender self-confidence and autonomy." As early as 2002, research on LSN beneficiaries revealed the importance of peer support to limb-loss survivors.<sup>5,6</sup>

LSN's five network programs employed a total of 44 outreach workers—themselves amputee landmine survivors who received four weeks of training in basic counseling techniques—to locate and contact other survivors, many of whom suffered alone in self-imposed isolation.<sup>7</sup> Forming a bond of trust and understanding is the first step toward reintegrating survivors into society, helping them regain self-confidence, find work or training, and participate in community activities. Outreach workers initially visited survivors in their homes and, in many cases, introduced survivors to support groups where they could engage in income-generation activities, sports or other forms of socialization.

Outreach workers acted as role models, demonstrating that limb-loss survivors can overcome physical, social and economic barriers to interact normally in society. Outreach workers accompanied (**linked**) survivors to agencies and institutions where jobs, education or financial assistance could be obtained, or they **referred** survivors to local service providers. These links and referrals constituted a major source of survivor support and made use of locally available services. The

Country	Number of Survivors
Bosnia & Herzegovina	77
El Salvador	84
Ethiopia	27
Iraq	47
Jordan	121
Vietnam	114

Figure 1. Distribution of survivors by country.

Number of Limb Amputations	Number of Survivors
0	125
1	300
2	45

Figure 2. Distribution of survivors by number of limb amputations.

Cause of Injury/Paralysis/Amputation	Number of Survivors
Lanmine/UXO	256
Diabetes	91
Other Illness/Infection/Disease	20
Accident	53
Act of Violence	7
Other	43

Figure 3. Distribution of survivors by cause of injury.

outreach workers were supervised by social workers who oversaw information collection about survivors and, together with the outreach workers, monitored survivors' progress in recovery.<sup>8</sup>

### Demographics

Study data was obtained from 470 survivors in Bosnia, El Salvador, Ethiopia, Jordan and Vietnam. Three hundred forty-five of these survivors are amputees, as shown in Figures 1 and 2. The Jordanian program provided assistance to Iraqi and Jordanian survivors.

Participants were primarily survivors of violent trauma, usually traumatic amputations, 256 of which were caused by ERW, particularly land-

Sex	Number of Survivors
Male	362
Female	108

Figure 4. Sex of survivors.

Age	Number of Survivors
0-17 years	20
18-29 years	41
30-39 years	68
40-49 years	103
50-59 years	96
>60 years	142

Figure 5. Age of survivors.

mines. Sixty participants were survivors of accidents or acts of violence such as gunshot wounds, and 154 had amputations resulting from illness, infections, disease or other causes (see Figure 3). Males predominated, which reflects the worldwide predominance of male versus female landmine survivors (see Figure 4), and 73 percent of participants (341) were over the age of 40 (see Figure 5).

Participants had received healthcare as available in their communities, but little or no formal psychotherapeutic care. A health screen was conducted revealing that many of the survivors suffered from chronic physical complaints, in addition to depression, insomnia and other post-traumatic-stress disorder symptoms.

### Study Design

Survivors were administered the SF-36 to measure the impact of peer support on their self-perceived physical and mental health status. The SF-36 was selected for this study because of the dynamic relationship between physical recovery and psychological recovery following a traumatic event such as a landmine injury.

LSN/SC outreach workers located the survivors in their communities and invited them to receive peer-support services. If the subject agreed, an initial interview was conducted, the SF-36 was administered and services were then initiated. As part of LSN/SC's counseling program, survivors were encouraged to develop a detailed list of personal achievement objectives that they wished to pursue during the next two years. With outreach workers' assistance, accomplishing these objectives then became the survivor's primary focus.

The Interim Interview was conducted after approximately one year of peer support, and the Exit Interview was given as the survivor prepared to end his or her participation in the peer-support program, not more than one year after the Interim Interview.

### Results

In comparing the overall scores for physical health and mental health, those survivors who scored high on the initial administration of the SF-36 tended to show little change on subsequent administrations, and in some cases subsequent scores were lower. The lower the initial score, the greater the change seen in subsequent scores.

Statistically significant changes were observed in SF-36 scores of nearly all survivors studied, including those injured more than two years previously, as shown in Figure 7 (next page). These survivors had already achieved some recovery, but once they began receiving peer support they showed an additional increase in their self-perceived mental and physical health.

Significant increases were observed in all eight SF-36 domain scores after one year of peer support (see Figure 8 next page); however, the results showed that mental-health changes were less prominent than physical-health chang-

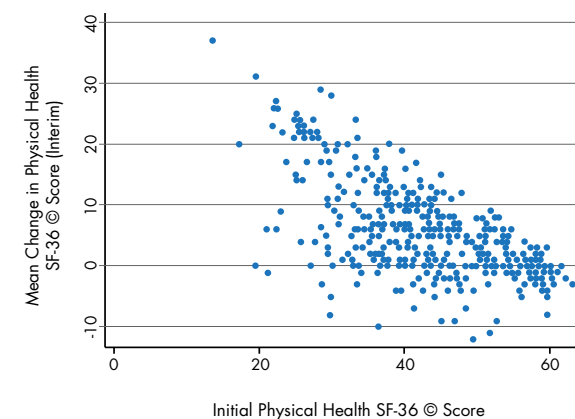
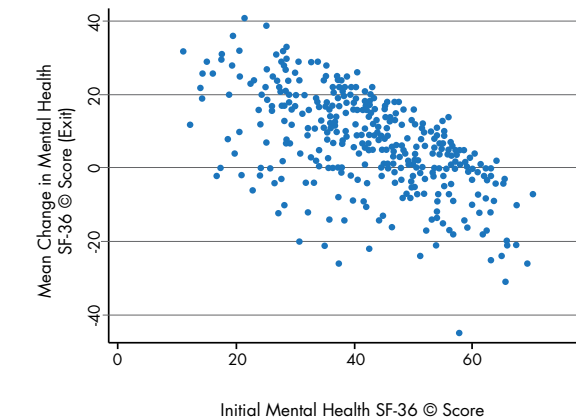


Figure 6. Initial physical and mental-health SF-36 scores.



Time Since Amputation/Injury/Paralysis	Physical Health SF-36 Score Change		Mental Health SF-36 Score Change	
	Mean (95% /CI)	No. Observations	Mean (95% CI)	No. Observations
0-2 years	7.70 (5.98-9.42)	104	9.14 (6.42-11.87)	104
>2 years	4.14 (3.32-4.97)	310	6.3 (4.93-7.67)	310

Figure 7. Time since amputation/injury compared to change in SF-36 score (exit).



Figure 8. Mean SF-36 Domain Scores (interim).

es among the interim group than in the exit group (see Figure 9 on the next page). Most survivors, with the help of their outreach workers, succeeded in achieving the majority of their objectives by the time of the Exit Interview, resulting in improved self-perceived mental health.

The success of LSN/SC's peer outreach model was evident in the area of social empowerment, and empowerment is seen as crucial to reaching greater social capital and reduced violence. Survivors exhibited significant improvement in their access to information, decision making, ability to self-advocate for their rights, understanding of disability as a rights issue and capacity to describe local laws and policies related to empowering or meeting the needs of people with disabilities (see Figure 10 on the next page). Upon entering the program, few survivors could discuss disability from a rights-perspective or describe local laws or policies affecting them, while 67 percent could do so after one year of peer support.

### Analysis and Discussion

LSN/SC relied heavily on the SF-36 to show that peer support is effective, and certainly the use of other instruments would have allowed for some triangulation. However, trauma survivors in conflict zones are often reticent to submit to psychometric testing; therefore, the administration of a single questionnaire with multiple domains was deemed sufficient. The use of a control group would have strengthened the study design and, as a result, the attribution of change due to peer support would have been better demonstrated, but the changes were evident among survivors who, several years after receiving injuries, still manifested significant improvements from peer-support services.

"Peer support" generally focuses on emotional and psychological support, whereas LSN/SC offered a full range of services through local providers and made every effort to address social issues including unemployment, human-rights violations, vocational needs and access to healthcare, in addition to providing psychological counseling. In this respect, LSN/SC was broad and holistic in its vision and benefited survivors as thoroughly as possible under the austere conditions present in these post-conflict settings.

### Conclusion

The LSN/SC model for psychosocial rehabilitation for trauma survivors was neither complex nor exceptionally difficult to implement, and results presented here indicate that

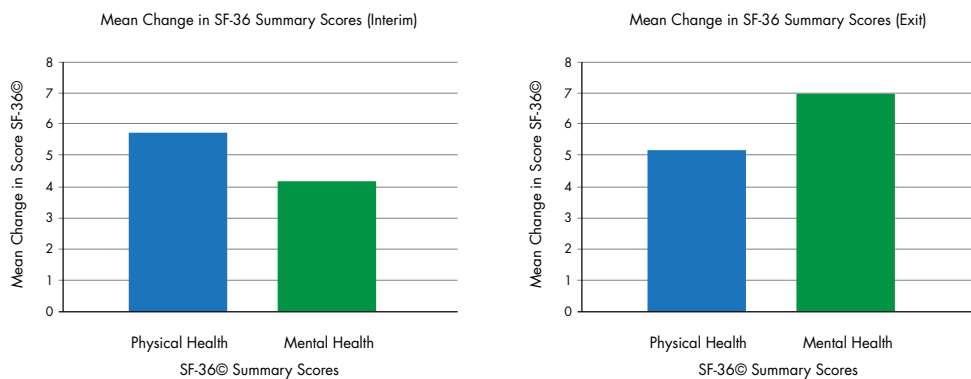


Figure 9. Mean change in SF-36 domains.

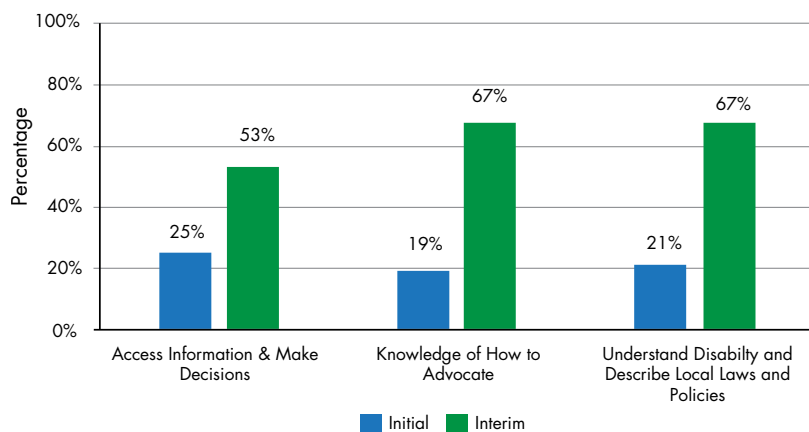


Figure 10. Social empowerment (interim). This data sample represents all the survivors who had both an Initial Interview and an Interim Interview completed. N=433.

such programs offer significant benefits for trauma survivors, their families and their communities. Nearly all the survivors included in this study described an improved sense of physical and mental well-being, and felt better able to participate in rebuilding their communities and engaging in the process of post-conflict reconciliation. ◊

See endnotes page 80



Dr. Marcia Townsend works as an independent consultant focusing on the effects and benefits of shale gas drilling in the Marcellus Shale Region in Pennsylvania. She was Director of Program Development at LSN/SC from 2004 to 2010.

Dr. Marcia Townsend  
Independent Consultant  
E-mail: Townsendmarcia83@gmail.com



Melissa Freeman works as an independent consultant and also serves as a board member with Hope Extended, a nonprofit providing disaster preparedness training and disaster-relief teams in developing countries. She was Senior Monitoring and Evaluation Officer at LSN/SC from 2007 to 2010.

Melissa Freeman  
Independent Consultant  
E-mail: Melissa@re-vive.org



Cameron Macaulay is the Trauma Rehabilitation Specialist at the Center for International Stabilization and Recovery at James Madison University. He holds degrees in anthropology and psychology and became a Physician Assistant in 1984. Between 2005 and 2010, he was the Health Education Specialist for LSN/SC. He joined CISR in August 2010.

Cameron Macaulay  
Peer Support and Trauma Rehabilitation Specialist  
Center for International Stabilization and Recovery  
James Madison University  
800 South Main Street, MSC 4902  
Harrisonburg, VA 22807 / USA  
Tel: +1 540 568 4941  
E-mail: macaulcs@jmu.edu  
Website: <http://cisr.jmu.edu> or <http://maic.jmu.edu>



Brent Maxwell is a Senior Developer and Technical Advisor for Fathom Creative, a Washington, D.C.-based interactive design firm. He was Monitoring and Evaluation Database Analyst at LSN/SC from 2007 to 2010.

Brent Maxwell  
Senior Developer and Technical Advisor  
Fathom Creative  
Washington, D.C. / USA  
E-mail: [brent@thebrent.net](mailto:brent@thebrent.net)