

# Causes and types of injuries encountered by Handicap International while working with Internally Displaced Persons in Syria: A FOCUS ON THE IMPACT OF EXPLOSIVE WEAPONS.

The aim of this paper is to provide a snapshot of the types of injuries caused by explosive weapons, such as those encountered by Handicap International (HI) while working with Internally Displaced Persons (IDPs) in Syria. Since the onset of the crisis, HI has worked to assist vulnerable people in Syria and neighbouring countries by providing physical rehabilitation, psychosocial support, emergency risk education as well as through the provision of assistive and mobility devices, including Prosthetics and Orthotics. The data provided below were collected during initial assessment work from 1,847 interviews of Internal Displaced Persons (IDPs) between November 2012 and October 2013 by HI teams in IDP camps, hospitals and communities inside Syria.

This paper draws attention to the short- and long-term consequences faced by victims of explosive weapons<sup>1</sup> specially when no proper, immediate or sustainable care is provided. It calls on all parties to the conflict to take immediate action so as to prevent future casualties, protect civilian populations by stopping the use of explosive weapons in populated areas, and ensure unhindered humanitarian access in order to address the urgent needs of the most vulnerable persons. It calls on the international community to take adequate measures to provide victims with immediate health services, and to ensure their full recovery and further inclusion in society in the future.

## Methodology and limitations:



Copyright: © G. Dubourthoumie / Handicap International.

The figures provided below were collected by HI team members through **direct interviews with IDPs in need of rehabilitation in hospitals, IDP camps and communities in Syria**<sup>2</sup>. The primary aim of these interviews was to improve the identification of the physical and mental condition of victims in order to provide individualised support. Information included below is based on HI identification mechanisms that focus on the most vulnerable, including persons with disabilities. Data was analysed from 1,847 interviews conducted by HI staff in 2012 and 2013. Of these 1,847, this fact sheet focuses on the 913 interviewees displaying crisis-related injuries.

<sup>1</sup> In this paper, the term “explosive weapons” refers to explosive devices used during bombing and shelling.

<sup>2</sup> Information provided in this paper was extracted from direct interviews in areas where Handicap International is active and should not be considered as representative of the whole Syrian population.

This paper neither discusses the consequences for numerous vulnerable people who have not been able to access refuge internally and have left Syria, nor does it provide information on the overall number of casualties resulting specifically from explosive weapons. It is not intended to provide a comprehensive picture of the extremely precarious situation that vulnerable people, including people with disabilities, are facing due to the Syrian crisis.

Based on large numbers of interviews of IDPs, it provides a specific snapshot of the main causes of injuries as a result of the crisis, and draws attention to the consequences that IDPs are currently facing and will continue to face if proper support is not immediately provided.

## Lack of immediate access to services for victims:

Since the beginning of their involvement in reaching out to the most vulnerable persons affected by the Syrian crisis (persons with injuries, persons with disabilities, older persons, single mothers, children head of households, etc.), Handicap International teams have witnessed an increasing pattern of hardship and the serious physical, psychosocial and economic impacts on civilian populations affected by the conflict.

As the conflict concludes its third year, the collapse of key health infrastructures in Syria has dramatically increased levels of vulnerability, particularly for people with disabilities, who are facing harsher conditions every day in terms of access to appropriate medical services and treatment.

The main consequences of the collapse of key infrastructures and services are:

- A lack of medical supplies and/or equipment for quality care.
- A lack of qualified health care workforce.
- The overburdening of the remaining care institutions that still exist.
- An absence of prevention measures to reduce complications and risks of additional impairments.
- An absence of early and long-term physical rehabilitation services.
- The continuous displacement and uprooting of vulnerable persons, weakening their health status.
- A burden of psychological insecurity on family members and the caregivers of the injured and vulnerable who are unable to cope with the situation.

**As such, 88.49% of IDPs initially interviewed by Handicap International declared that they did not have satisfactory access to rehabilitation services.**<sup>3</sup> This situation leads to serious and long-term consequences for injured people, including the risk of developing permanent impairments.

### QUICK FACTS:

- 49.5% of interviewees display new injuries related to the crisis.
- 60% of people interviewed with new injuries related to the crisis were injured as a result of explosive weapons and 31% due to gunshots.
- 88.49% of people with new injuries related to the crisis declared they did not have satisfactory access to rehabilitation services when initially interviewed.
- 26.9% of interviewees with new injuries related to the crisis were categorized among the most vulnerable populations. 19.49% were infants or children.

<sup>(3)</sup> Prior to intervention by Handicap International.



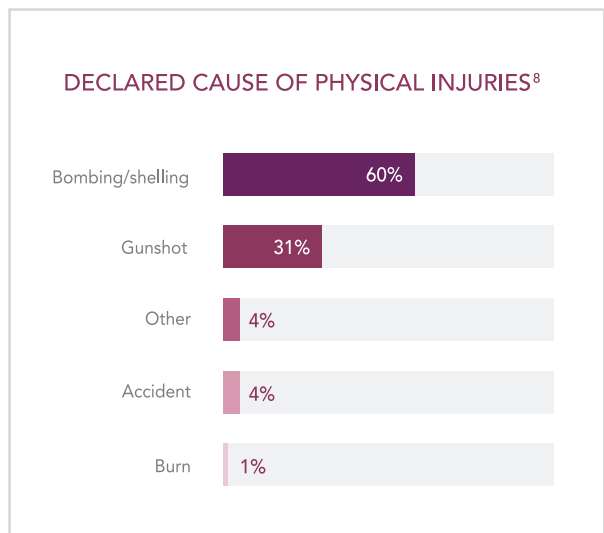
**While this situation persists, access to essential rehabilitation services, along with access to immediate health care for victims should be ensured by parties to the conflict in order to avoid additional, long-term impairments and possibly fatal complications<sup>4</sup> among IDPs.**

## High number of conflict-related victims due to the use of explosive weapons:

From the sample, information on the main causes of injuries related to the conflict within the Syrian population can be estimated. Among interviewees displaying new injuries related to the crisis, the vast majority of injured people are adults, 5.26% of whom are adult women. **Moreover, 16.97% are children, 2.52% are infants and 2.19% are elderly<sup>5</sup>. Therefore, in total, 26.9% of these victims are categorised among the most vulnerable populations, which reveals the indiscriminate nature of the conflict and its effects on civilian populations<sup>6</sup>.**

**Additionally, 17.3% of the people who were interviewed by HI and who are facing severe injuries or permanent impairments are heads of household with an average of more than 7 dependents per family (7.4).** Post-crisis work should include socio-economic reintegration measures. These measures should be implemented at this early stage.

**In particular, the large number of direct victims related to the extensive use of explosive weapons is a major concern.** Based on HI interviews in Syria, **49.5% of interviewees display new injuries related to the crisis<sup>7</sup>, 60% of which are due to explosive weapons and 31% as a result of gunshots.**



<sup>4</sup> Persons with Spinal Cord Injury or Traumatic Brain Injury who are not actively receiving proper physical therapy and education on positioning and wound care are at high risk of secondary medical complications. As a result, they can easily be exposed to harmful pressure sores, or potentially fatal consequences such as lung infections.

<sup>5</sup> Age groups defined in the interview template are as follows: infants between 0 and 5 years old; children between 6 and 17 years old; and elderly people over 60 years old. Information on age groups is lacking for 1.65% of the interviewees.

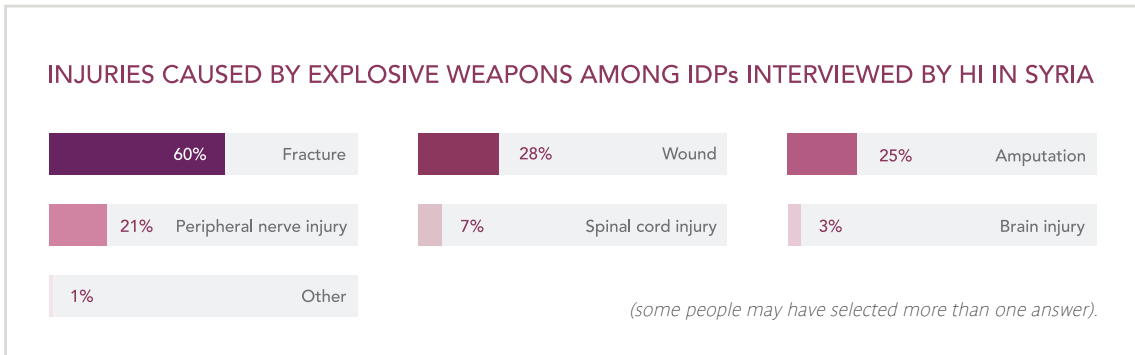
<sup>6</sup> Females account for 10.95% of the total number of new victims interviewed.

<sup>7</sup> While this paper focuses on person with new injuries related to the crisis, the 50.5% of vulnerable persons with a disability from birth, old ages or due to other causes are also in desperate needs of urgent medical care and appropriate services. These vulnerable persons are included in all Handicap International interventions.

<sup>8</sup> Other agencies working in Syria may have encountered a higher percentage of persons suffering burn-related injuries in initial assessments conducted in the direct aftermath of an incident. It should be noted that survival rates from severe burns is often extremely low due to the specificity of the injury. The numbers of people reaching HI by referral is therefore limited.

“Crisis-related accidents” refer to those cases in which interviewees experience harm as a direct consequence of the crisis. This would, for example, apply in a case where the interviewee was injured in the process of attempting to flee bombing/shelling in a combat zone by falling in the street, being involved in a road accident, etc. Crisis-related accidents are cases such as those that lead to direct injuries and/or permanent impairments.

# Main physical consequences of explosive weapons for people interviewed:



Among HI's interviewees, **60% of people injured by explosive weapons had fractures or complex fractures, including open fractures, of lower and/or upper limbs.**

After a fracture, there is an urgent need to align broken bones under the supervision of orthopaedic specialists, who are desperately needed but yet severely lacking in the current context. When no appropriate emergency medical care is provided, observations on the ground in crisis settings have shown the occurrence of pain, severe muscle deformities that become irreversible leading to restrictive mobility, as well as skin injuries and infections.

**21% of the interviewees injured by explosive weapons were facing peripheral nerve injury; of these, 43.1% were also facing fractures or complex fractures.** Early detection of nerve damage needs to be assessed as soon as possible, in order to avoid muscular contractions and further paralysis. Rehabilitation specialists need to provide advice and adapted clinical exercises for the affected person during the period of bone consolidation, and advice on correct positioning of the affected paralyzed limb is of vital importance.

Unfortunately, due to the lack of access to health care providers or specialised humanitarian actors, this early detection of peripheral nerve injury and complex fracture is rarely undertaken. This will lead to permanent effects, such as bone deformity and paralysis, ultimately leading

to loss of function (with permanent consequences in most cases) in their everyday activities (eating, washing, personal care, walking, etc.).

**Among HI's interviewees, 25% of the victims from explosive weapons have undergone amputation.** Immediately after an accident, victims need safe and prompt surgical care and correct skin care for their residual limb in order to avoid complications, additional impairments or death. Additionally, in the immediate aftermath of an accident, victims need to be prepared and coached to start mobilizing their residual limb and strengthen their muscles. This must be followed by the provision of prosthetic services two to three months after amputation. The lack of trained personnel and diminished numbers of medical staff in Syria impede affected persons gaining access to these basic services, often leading to avoidable complications, and even death.

Following an amputation, it is crucial for consultation with specialists and the support of their peers in order to learn to accept the consequences of the loss of a limb (pain, phantom pain, reduced muscular strength and independent ambulation perimeters). Moreover, the amputee will need lifelong follow-up and periodic maintenance of their prosthetic limb(s), as such items need to be replaced/maintained every three to five years. This has a significant economic cost, and their transportation and



Copyright: © Brice Blondel / Handicap International.

living environments need more attention than those of other persons. A person with amputation has to take into account that age and level of activity will influence their mobility more than other persons. All these services are currently lacking in Syria and are overwhelmed in neighbouring countries.

**Among HI's interviewees, 7% of the victims from explosive weapons suffered spinal cord injury** leading to generalised paralysis in accordance with the level of the spine affected<sup>9</sup>. **This condition is irreversible.** Additionally, it affects bladder and bowel function leading to constant risks of bladder infections and faecal incontinence, as well as higher risk of developing pneumonia and other lethal complications. Moreover, pressure ulcers are prone to develop in open wounds. Neurological changes in the body after spinal cord injury lead to pain, stiffness, change in muscle tone and cardiac complications depending on the level of injury. The injured person will need on-going support and their direct family members to act as caregivers for the rest of their lives. The psychological adjust-

ment must be accompanied by peer advice, counselling and economic support. Generally, it takes two to three years before victims with spinal cord injuries accept their status and are able to imagine starting a new life.

The lifelong follow-up should consist of re-planning routines of toileting, daily activities, mobility, relationships, and leisure activities, knowing that targeted advice and help should be provided in accordance with gender (sexual counselling, family roles) and cultural background. Economic loss due to the foregone income of the head of the family, and the expenses in follow-up care, home adaptations, accessibility and daily life adjustments for mobility (wheelchairs, motorised transport, mobility aids for daily living activities etc.) need to be compensated for with dedicated social programmes and sustainable support schemes. **These considerations should be considered central by donors and international agencies in their development programmes, funding mechanisms and long-term post-crisis planning.**

<sup>9</sup> Lower spine = legs paralyzed; upper spine = legs and arms affected.

## Conclusion:

Victims of explosive weapons are in desperate need of immediate access to adequate medical services in order to deal with their injuries effectively and avoid complications or death. In addition, they will need lifelong medical, social and economic support in order to have a decent chance of participating in society. The number of people needing support will require a significant level of resources, both now and in the future to ensure equal quality of life for all citizens.

Furthermore, explosive weapons will leave immense numbers of unexploded ordnance in or near civilian areas. Although it is not possible to clearly assess the extent of the contamination, given the density of the shelling,

large-scale emergency risk education measures must be provided to IDPs to avoid numerous further casualties. It is of great concern that the issue of the excessive use of weapons in populated areas is not being prioritised.

Additionally, there is a lack of adequate attention given to developing health services and the training of appropriate physical, occupational and psychosocial health staff. Handicap International has observed this process in a variety of other war-torn countries during their reconstruction phases (Cambodia, Angola, Vietnam...) and would like to highlight the need for long-term development and critical thinking for both the future of Syria and the benefit of its most vulnerable citizens.

### THUS, HANDICAP INTERNATIONAL RECOMMENDS THAT THE FOLLOWING ACTIONS BE TAKEN:

#### To the parties to the conflict:

- Commit to stop using explosive weapons in populated areas in order to avoid further civilian casualties.
- Ensure safe and unhindered access on behalf of international and national NGOs to vulnerable populations in all areas affected by conflict.
- Allow and facilitate the safe passage of relief convoys and humanitarian personnel into and across territories within their control, especially to facilitate emergency access to and transportation of injured, in accordance with International Humanitarian Law.
- Abide by their obligations to protect civilians through the unhindered opportunity for all civilians that wish to flee the conflict zones.
- Ensure communication with the populations and raise their awareness regarding the risk and threats posed by unexploded devices and conventional weapons.
- Ensure safe storage of weapons and munitions in accordance with international standards.

States should call on parties to the conflict to respect the above recommendations and condemn any use of explosive weapons in populated areas in Syria.

**To donors and international agencies:**

- Prioritize funding in accordance with the needs of the most vulnerable (particularly persons with injuries, persons with disabilities and older persons) and ensure basic and specific needs of persons with disabilities and other vulnerable groups are given consideration within all humanitarian response activities and frameworks.
- Encourage humanitarian actors to strengthen their coordination, in and between sectors and geographical areas, in order to ensure that crosscutting issues such as disability are fully taken into account and addressed.
- With the provision of emergency response funding, ensure adequate protection and health care measures are addressed through transparent means, including by supporting cross-border intervention. Ensure that funding and other assistance is also made available for the long-term.
- Within appeals, include resources for better data collection, monitoring and reporting measures on vulnerable people including persons with disabilities, on the effects caused by the use of explosive weapons.
- Ensure further improvement of the physical accessibility of services, both at camp and community level. In order to prevent exclusion, the specific needs of older persons and persons with disabilities must to be taken into account for each sector and at each stage of humanitarian assistance (i.e. registration, dissemination of information, assessment, programming, and distribution).

Following these recommendations will help prevent further casualties and reduce the long-term impairment of victims.

# Handicap International's work in Syria and on the wider crisis:

After almost three years of conflict, the humanitarian situation in Syria has reached crisis point with more than 130,000 people dead<sup>10</sup>, hundreds of thousands injured, 6.5 million IDPs and more than 2.3 million refugees in neighbouring countries<sup>11</sup>. Since the start of the crisis and in order to support the most vulnerable, Handicap International's team of physiotherapists has been working closely with hospitals to assist the large numbers of injured refugees in Syria, as well as those arriving in Lebanon and Jordan.



Copyright: © Brice Blondel / Handicap International.

Handicap International provides rehabilitation services to people who have amputations and need to learn how to live with an artificial limb, as well as people whose injuries could result in a permanent impairment, due to a prolonged period of inactivity or a complex fracture. HI has set up permanent and mobile DVFPs (Disability and Vulnerability Focal Points) in Bekaa Valley, in northern Lebanon, and along the northwest border of Jordan to meet the needs of the most vulnerable, including people with disabilities. In addition, HI is

taking specific and proactive steps to reduce the risk to civilians caused by explosive remnants of war such as landmines and unexploded ordnance: in Jordan HI staff are providing risk education messages to refugees; in Syria HI have recently begun activities to provide life-saving awareness-raising messages to civilians. HI is also a founding member of the technical working group on mine action, pushing for greater collaboration amongst practitioners in order to harmonize risk education messages and data collection methodologies. Since the end of 2012, specialists in psychosocial support for refugees have systematically been included on the organization's teams.

Through its extensive experience with interventions in complex emergencies and crisis settings (the Cambodian border, Angola, Mozambique, Somalia, etc.) Handicap International has gained comprehensive insight into the impacts in both the short and long term, on the quality of life of persons affected directly or indirectly by situations of armed conflict. Since the beginning of HI involvement in reaching out to the most vulnerable victims such as the severely injured, infants, the elderly, people with disabilities and women, the Syrian crisis has shown an increasingly consistent pattern of hardship, with serious physical, psychosocial and economic impacts on the affected civilian population in the conflict area.

<sup>10</sup> Syrian Observatory for Human Rights, December 2013.

<sup>11</sup> OCHA, Humanitarian Bulletin Syria, n°39, December 16<sup>th</sup> 2013.