

## Wheelchairs in Emergency Settings

Inventing, Prototyping and Testing an Innovative Wheelchair Solution  
for Disabled People in Emergencies  
Motivation Charitable Trust

**“Poor people are disproportionately affected by disasters and disabled people are amongst the most affected. It’s vital to include disabled people in emergency preparedness. If you don’t have mobility because you have just been injured or if you are already disabled and have lost your equipment, you will not be able to access relief, you will be seen as a burden and possibly left behind.”**

Sarah Sheldon, Motivation

In emergencies wheelchairs are typically slow to arrive and second hand hospital chairs which rarely meet international standards are not designed for the challenging environments typical of emergencies. The lack of suitable wheelchairs in emergency settings causes life threatening situations for injured and disabled people and excludes them from emergency relief efforts.

HIF has supported Motivation from the outset. Currently Motivation are receiving their 3rd grant from HIF. Initially Motivation had a small innovation grant for 6 months to look at the need for the specially designed wheelchairs to meet the specific requirements of emergency situations. No specifically designed wheelchairs existed and so Motivation produced some prototypes and ran trials in Pakistan and Kenya. A large grant in 2012 over 18 months allowed Motivation to test out the innovation further, to produce over 200 chairs and to instigate a



training package to include clinically fitting the chair. If the wheelchair user is not fitted correctly with the chair, especially if they already have spinal injuries then they will encounter health problems and pressure sores. It’s estimated that up to 85% of people with pressure sores die within 2 years.

The current 3rd grant is for diffusion of the innovation response; to inform and disseminate. To let organisations know that the package, which includes the emergency wheelchair, service and training, is available and to advocate for the inclusion of disabilities in disaster preparedness.



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### Key Information:

#### Lead organisation:

Motivation Charitable Trust

**Support Provided:** 2011 Small Grant for invention and prototyping, 2012 Large Grant for development and the rapid provision of wheelchairs in Emergency and 2015 Small Grant for increasing awareness and amongst humanitarian organisations.

#### Partners:

World Federation of Occupational Therapists, Johanniter (JUH), Handicap International (HI)

### Summary:

The development of an innovative response to ensure the rapid and appropriate provision of emergency wheelchairs to injured and disabled people in humanitarian crises.

### What humanitarian need is being addressed?

The emergency wheelchair response meets a need not currently met by any other organisations. It includes a wheelchair which, in contrast to the majority of orthopedic wheelchairs donated in emergencies, is highly suitable for an emergency context and environment.

The design of the wheelchair makes it compact, easily transportable, adjustable, suitable for difficult and/or rough terrain, and is available at an affordable cost to enable organisations to reach the maximum number of people during an emergency.

It is quick and easy to assemble, using hand tools provided, and designed for rapid implementation. Its bright orange frame increases visibility of disabled people – vital to increase reach in an emergency.

The field support package of tools and training, which accompanies the emergency wheelchair, contains guidance on setting up an emergency wheelchair service including clinical, mobility and storage areas; clinical information; a fitting form and user training instructions, and guidance for the user, including health and mobility information and wheelchair maintenance. The package of tools ensures an effective response to an acute situation. The short training course is based on the recommendations in the World Health Organization's (WHO) 'Guidelines on the Provision of Manual Wheelchairs in Less Resourced Settings' and is designed to support the training of field staff to provide a wheelchair and cushion for people who need wheelchairs in emergency situations.

### What is the innovative solution?

The Emergency Wheelchair Response will allow high numbers of victims in an emergency situation to access relief services and have a greater chance of survival. Engaging with stakeholders involved in disaster risk management to inform them about Motivation's Emergency Wheelchair Response package will increase their awareness about including people with disabilities, and hopefully lead to them implementing the package within their disaster response planning.

Wheelchair provision in emergency situations is often:

- Omitted from emergency rehabilitation services (which predominantly focus on prosthetics and orthotics (P&O), and not linked to other service provision)
- Not immediate - wheelchairs often arrive after the critical period when intervention can save lives
- Unplanned - there is often no service infrastructure or training for the appropriate delivery of wheelchairs
- Uncoordinated - the wheelchairs which do arrive are donated in an ad-hoc way
- Inappropriate - according to the WHO Guidelines and International Organization for Standardization (ISO) 7176

### How does the innovation build on and improve existing humanitarian practice?

Motivation is building on the momentum gained and successes achieved through two previous HIF grants. Following the completion of the large grant in 2014, Motivation have been working closely with the UK International Emergency Trauma Register (UKIETR), a DFID-supported programme run by UK-Med. UKIETR brings together surgeons, anaesthetists, emergency physicians/nurses and other supporting medical, nursing and paramedical personnel who are interested in responding to large scale emergencies overseas.

Motivation have provided training to professionals on this Register and they have already been mobilised to respond to the emergency in Gaza. Both HI and JUH have purchased stock of emergency wheelchairs to use in emergencies. Motivation is also holding a stock of wheelchairs in the UNHRD Storage Hub in Dubai, ready for rapid deployment. This stock has recently been deployed in Nepal.

[www.motivation.org.uk](http://www.motivation.org.uk)

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