

## Fact Sheet 2: Methods for improving wheelchair provision: A guide for providers of donated wheelchairs to low-income countries

While each of the many organisations devoted to wheelchair provision may have different philosophies or methodologies, we all have one common goal: *the improvement of the quality of life of people with disabilities in low-income countries*. With this goal in mind, Motivation has developed this document in order to assist providers of donated wheelchairs to improve the quality of the services they provide and to offer advice and support for pursuing alternative ways of providing mobility to people with disabilities.

### 1. Donated wheelchairs

#### 1.1 Common problems with donated wheelchairs

At first glance, the practice of sending used wheelchairs to low-income countries seems like a logical solution to the great need for wheelchairs in many countries. Indeed,

there are perhaps tens of thousands of these wheelchairs in garages or attics, 20 million people worldwide in need of a wheelchair, and hundreds of hardworking, generous people who put considerable time and energy into collecting, refurbishing and shipping these wheelchairs overseas.

However, after 14 years of working in low-income countries in partnership with disabled peoples' organisations (DPOs), local non-governmental organisations (NGOs) and individual wheelchair users, Motivation has encountered several very serious problems with donated wheelchairs. These problems fall into four categories: **adjustability**, **suitability**, **durability** and **sustainability**. If a wheelchair provision programme fails to address these four criteria, the wheelchair user will receive an inferior product which may cause long-term, permanent secondary injuries.

#### Problems with donated wheelchairs

<b>Adjustability</b>	Donated used wheelchairs can rarely be adjusted to fit the individual user and will usually be too small or too large, especially for children. An ill-fitting wheelchair, particularly when it is provided without a pressure relieving cushion, can cause extremely serious and potentially fatal health problems such as pressure sores, spinal curvature (scoliosis) and contractures.
<b>Suitability</b>	Most of these wheelchairs were designed for use in hospital or indoor settings in industrialised countries like the UK or the US. In low-income countries, which tend to have uneven or unpaved roads or sandy terrain, these wheelchairs will be difficult or impossible to use.
<b>Durability</b>	Donated chairs from industrialised countries tend to break easily in the harsh conditions in most low-income countries. Repairs are extremely expensive because replacement parts are usually not available locally.
<b>Sustainability</b>	A large influx of donated wheelchairs can put local wheelchair producers out of business, eliminating the long-term source of wheelchairs for that community. There is also no follow-up or support for wheelchair users after the distribution.



A pile of broken donated wheelchairs in Tanzania. These chairs were unable to survive the conditions in a low-income country.

## 1.2 Is *any* wheelchair better than nothing?

For a small number of users, such as short-term users, any wheelchair may be better than no wheelchair. However, for most users, inappropriate wheelchairs can cause very serious health problems and often break down within just a few months. They would be better off with no wheelchair than a piece of equipment that is dangerous to their health.

Rather than thinking in terms of something or nothing, Motivation believes that the resources used to ship and deliver these inappropriate wheelchairs overseas could be better used to provide appropriate chairs that meet the needs of each individual user and establish local wheelchair services that provide mobility in the long term. We believe that something appropriate and long lasting is better than “just something”.

### Recommendations

#### Adjustability

- Make sure each wheelchair user is measured and assessed by a trained individual.
- Provide a wheelchair to fit the unique measurements of each user - avoid the ‘one size fits all’ non-adjustable approach.
- Be sure that children receive children’s wheelchairs and that people with supportive seating needs get the postural support they require.

## 2. Guidelines and tips for appropriate wheelchair provision

### 2.1 Seat cushions

The most important part of a wheelchair is not the wheels or the frame but the seat base and pressure relieving cushion. When a wheelchair is provided without a proper cushion, especially to users who do not have sensation, the wheelchair can cause pressure sores. Pressure sores are very difficult to treat and can quickly become infected and cause death.

Always provide a pressure relieving cushion.

### 2.2 Adjustability

A wheelchair must fit each individual person and take into account differences in body measurements and the specific needs of different disabilities. Just as a badly fitting pair of shoes can cause problems, so can an improper wheelchair cause injuries.

A wheelchair should not be provided without assessment by a person trained to fit wheelchairs, if possible someone local rather than volunteers from industrialised countries. The wheelchair must be adjustable or custom made to fit the measurements of the user. When necessary, it should be able to accommodate supportive seating needs for people who need more postural support. Users who could push the wheelchair independently need their wheels positioned for self propulsion.

## Children's wheelchairs: A comparison



Left: This child is using an adult's wheelchair with no seat cushion. The wheelchair is too big, provides no postural support, is impossible for her to push independently, and may cause scoliosis, contractures and pressure sores.

Right: This child is using a Motivation wheelchair designed for use in low-income countries fitted with a special seating system and seat cushion. The chair fits her well and the wheels are positioned so that she can push herself.



### 2.3 Suitability

Many donated wheelchairs were designed for indoor use in industrialised countries. These chairs are difficult or impossible to use on uneven pavement, unpaved roads or sandy, hilly terrain. Therefore, it is very important to understand the environment in which a wheelchair user lives to provide the most appropriate wheelchair. The user should be able to move around in that environment without getting stuck or tipping out of the wheelchair.

### 2.4 Durability

Most wheelchair users need to use their wheelchair for at least 15 hours a day, seven days a week. In low-income countries, many people will be using the chair on rocky, unpaved roads in a hot or humid climate which will put considerable strain on the wheelchair. Therefore, the wheelchair must be able to handle constant, long-term use in rugged conditions.



A suitable wheelchair can allow a user to push over rough terrain and unpaved roads.

If the wheels, frame and upholstery of the chair are not high enough quality, the chair will quickly break down and leave the user without any form of mobility. Donated wheelchairs, designed to last in indoor environments, will often last no more than three to six months in low-income countries. Therefore the wheelchair must be well made, sturdy and designed for use in low-income countries on rough terrain.

## Recommendations

### Suitability

- Assess the environment where the wheelchair user lives.
- Find out if the wheelchair will be used outdoors and if the user must navigate uneven pavement, dirt roads, sand or mud.
- Provide a wheelchair that is appropriate for this environment and will not cause the user to get stuck or tip out of the wheelchair.

A wheelchair must also be easily repaired. In most low-income countries, parts like bicycle wheels and bearings are available but usually will not be the correct size for a wheelchair donated from overseas. In many cases the only way to find spare parts is to order them from overseas which most wheelchair users in low-income countries cannot afford. As a result, once the tyre needs replacing or a front caster wheel breaks, the user will often no longer be able to use the chair.



When the tyres, wheels and upholstery break on a donated wheelchair it can be difficult or impossible to repair them.

When providing wheelchairs for a given community, first investigate the parts that are available locally and any nearby repair facilities. What would a wheelchair user

have to do if the front caster wheel broke, the upholstery ripped or a tyre needed replacing? Providing replacement parts with the wheelchair such as upholstery, tyres, wheels, bearings, etc., can help to extend the life of the chair but a better solution over the long term is to support a fitting and repair facility and to provide wheelchairs made with parts that can be obtained locally.

## 2.5 Sustainability

Many providers of used wheelchairs bring a large shipment of wheelchairs, take photos and then leave the country. When those chairs break down weeks or months later, there is no place for the recipient to go for repairs. When children grow too big for their wheelchairs or a chair has broken beyond repair, there is no facility to provide a new wheelchair. When people have an accident or an illness and need a wheelchair, they must wait until the next wheelchair distribution.

A better and more sustainable approach is to support long-term wheelchair services rather than one-off distributions. Think in the long term rather than the short term: how can you meet the mobility needs of a certain population indefinitely? Achieving long term access to mobility equipment requires support for local wheelchair service centres with well-trained, in-country staff, preferably people with disabilities.

## Recommendations

### Durability

- Only provide high quality equipment that can survive the conditions in low-income countries.
- Investigate the replacement parts that are available locally and affordably.
- Support a local wheelchair service facility that can provide repairs and make sure it is well stocked with long term access to parts.
- Consider supplying each wheelchair with replacement parts and training wheelchair users in basic wheelchair maintenance.

These facilities can be housed within a health centre or hospital, as an independent facility or as a project of a disabled peoples' organisation (DPO). They may produce wheelchairs, import low cost wheelchairs or coordinate donations of wheelchairs or some combination of all of these options. The main goal, however, is that when someone acquires a disability next year, there will be a centre where he or she can go to get services and equipment.

It is also important to do some preliminary research before providing wheelchairs in a community to ensure you do not harm the business of local wheelchair manufacturers. In the past, donated wheelchairs have put many local wheelchair providers out of business. These donated wheelchairs only last about six months, but then when they break down there is no longer a facility that can produce new chairs or repair broken ones.

Make sure that you work with these local providers, either purchasing wheelchairs from them or consulting with them to ensure that your wheelchairs do not harm their business.

### 3. Disability awareness

#### 3.1 Attitude and approach

Many organisations try to portray people with disabilities as helpless in order to tug at the heartstrings of potential donors. While

this may help with fundraising, it often promotes an image of people with disabilities as passive objects of pity. These images contribute to widespread misconceptions about the abilities of people, often making it harder to gain employment or attend school. In essence, it perpetuates the myth that people with disabilities should rely on charity rather than lead normal, independent lives.

Rather than thinking of your work as *helping* people with disabilities, think of your organisation as *working in partnership* with disabled peoples' organisations (DPOs). Be aware of the language and images that you use, both in personal interactions and in your website and fundraising materials.

#### Examples of negative language

A crippled woman, a handicapped child, a man confined to a wheelchair

#### Examples of positive language

A woman with a spinal cord injury, a child with cerebral palsy, a wheelchair user, a disabled person

When meeting disabled people, make sure that you ask them questions directly rather than asking a family member. Do not change your tone of voice or use negative or outdated terms to refer to disability. Make sure that your staff and volunteers are aware of appropriate language and terms.

#### Recommendations

#### Sustainability

- Support a local wheelchair service facility and help it to become financially self-sustaining.
- Do research on wheelchair producers and service facilities in a community before you provide wheelchairs.
- Consider purchasing locally produced chairs or consulting with local producers to ensure that your wheelchairs do not harm their business.

## 4. Working with Motivation

Motivation believes that an alternative to donated wheelchairs is necessary to meet the needs of wheelchair users and provide real improvement in their quality of life. We would be happy to work with organisations that wish to expand or alter the mobility products and services they provide.

### **Motivation can provide advice for setting up a local wheelchair service facility**

A local wheelchair service facility can employ locally trained staff to assess and prescribe wheelchairs, measuring each individual user and determining his or her specific mobility needs. These facilities serve as the primary access point for people with mobility disabilities in need of wheelchairs. The facility can order wheelchairs from local or international producers, coordinate local provision of donated wheelchairs and manage a wheelchair fund used to assist clients who can not afford to purchase a wheelchair.

### **Motivation can provide advice for establishing local wheelchair production**

Local wheelchair production of appropriate designs provides a long-term supply of wheelchairs designed specifically for each country or region. While local production is not always feasible, it can provide the most appropriate, long lasting and customisable wheelchairs while providing jobs in the local community.

### **Your organisation could use Worldmade wheelchairs and parts**

Because local production is not always feasible, Motivation has developed Worldmade wheelchairs in order to provide a supply of low cost wheelchairs that local wheelchair service providers can import. These high quality, highly adjustable chairs

have been specifically designed for wheelchair users in low-income countries. Motivation currently delivers Worldmade wheelchairs for US\$150 but aims to lower that cost to around US\$100. They are designed to be size adjustable and individually fitted and are supplied with pressure relief cushions.

### **Your organisation can implement the Fit for Life training course**

Motivation has developed the Fit for Life training course to teach local therapists, technicians, health care workers and service providers about the different types of available wheelchairs, how to assess, prescribe and fit wheelchairs, and how to instruct wheelchair users in important wheelchair skills. This two week course can improve the services at a pre-existing facility or train staff for a new facility.

### **Your organisation can send individuals to TATCOT for training in wheelchair technology**

The Tanzanian Training Centre for Orthopaedic Technologists has worked with Motivation to develop a one year Certificate Course in Wheelchair Technology in Moshi. Upon completion of the course, the individual would have the professional skills and knowledge to fabricate and prescribe appropriate wheelchairs and to manage a self-financing workshop.

For information about how your organisation can partner with Motivation or copies of our other fact sheets, please contact us at:

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