



## Diabetes and other cardiovascular risk factors

September 2012

**HANDICAP  
INTERNATIONAL**

### About... Handicap International

“Handicap International is an independent and impartial international aid organisation working in situations of poverty and exclusion, conflict and disaster.

Working alongside persons with disabilities and other vulnerable groups, our action and testimony are focused on responding to their essential needs, improving their living conditions and promoting respect for their dignity and their fundamental rights.”

[www.handicap-international.org](http://www.handicap-international.org)

### About... this brief

#### Authors

Davide OLCHINI  
Estelle PASQUIER  
Pauline GUIMET

#### Editor

Handicap International  
Technical Resources  
Division (DRT)  
Knowledge Management  
Unit

14, avenue Berthelot  
69361 Lyon cedex 07  
France

[publications@handicap-international.org](mailto:publications@handicap-international.org)

#### Editing and layout

Stéphanie DEYGAS  
Michael GUY

This policy brief is an introduction to Handicap International's 2012 policy paper on diabetes and other cardiovascular risk factors. It provides an overview of Handicap International's activities in this sector. We would encourage you to read the full version of the policy paper available at:

French version: [http://www.hiproweb.org/uploads/tx\\_hidrtdocs/DiabeteDC06.pdf](http://www.hiproweb.org/uploads/tx_hidrtdocs/DiabeteDC06.pdf)

English version: [http://www.hiproweb.org/uploads/tx\\_hidrtdocs/DiabetesPP06.pdf](http://www.hiproweb.org/uploads/tx_hidrtdocs/DiabetesPP06.pdf)



### Key messages

According to the World Health Organization, non-communicable diseases, mainly cardiovascular diseases, cancers, chronic respiratory diseases and diabetes, are the main cause of death and disability in the world.

For Handicap International, diabetes has been a starting point for working with people living with non-communicable diseases. This approach has allowed us to support health and social systems in pilot countries through the changes required to manage these diseases, and subsequently to conduct synergistic actions on other cardiovascular risk factors (arterial hypertension, lipid disorders, excess weight etc.) in a second time.

### Key figures

- Non-communicable diseases are estimated to account for 66.5% of all years lived with disability in low-income and middle-income countries (*Source: World Health Organization*).
- 80% of cases of premature cardiovascular diseases and stroke, 80% of type 2 diabetes and 40% of cancers could be avoided by eating healthily, doing regular physical exercise and not smoking (*Source: World Health Organization*).
- Some 366 million people worldwide, or 8.3% of adults, are estimated to have diabetes in 2011 and about 80% live in low- and middle-income countries (*Source: International Diabetes Federation*).
- If these trends continue, by 2030, some 552 million people, or one adult in 10, will have diabetes (*Source: International Diabetes Federation*).

# Why take action in the field of diabetes and other cardiovascular risk factors



## Definitions of diabetes

- **Type 1 diabetes** is characterised by a lack of insulin secretion by the pancreas due to the total destruction of the cells which secrete this hormone. Insulin is a hormone which allows glucose to pass from the blood into cells.
- **Type 2 diabetes** is characterised by progressive organ resistance to insulin. While hereditary and genetic factors play an important role, this type of diabetes can also result from a lack of physical exercise, a diet high in fat and sugar, excess weight and obesity.
- **Gestational diabetes** occurs during pregnancy; it can cause congenital malformations in the child and complications during birth. Thereafter, the mother and the child have an increased risk of developing type 2 diabetes.
- **Secondary diabetes** results from the destruction of the pancreas, a genetic anomaly...



## Cardiovascular risk factors

These are mainly:

- smoking
- alcohol abuse
- high salt intake
- sedentary lifestyle
- diabetes
- arterial hypertension
- blood lipid disorders (dyslipemia)
- excess weight and obesity
- family history of similar diseases.

## Importance and context

The World Health Organization defines "non-communicable diseases" as non-infectious chronic diseases, as opposed to communicable (infectious) diseases. These diseases share certain risk factors: tobacco consumption, poor diet, sedentary lifestyle, excessive alcohol consumption. This category has been built based on the possibility for implementing joint prevention interventions. Handicap International regards mental disorders, including disorders relating to the use of psychoactive substances (alcohol, drugs), also as forming part of the group of non-communicable diseases, even if they are not recognized by the international community as part of this group. Cardiovascular diseases are diseases affecting the heart and blood vessels.

The main disabling cardiovascular diseases include:

- Stroke leading to paralysis of certain parts of the body
- Heart attacks leading to heart failure and therefore severe limitation in the daily activities due to breathlessness from minimal physical activity
- Arteritis of the lower limbs leading to difficulties with walking.

These diseases are more likely to develop in people subject to risk factors known as cardiovascular risk factors.

## Why take action?

If not correctly managed, diabetes and other cardiovascular diseases can have serious disabling impacts and potential long-term complications (blindness, hemiplegia, heart failure, renal failure, chronic ulcers, lower limb amputation, dementia,...). Moreover, living with a chronic disease often leads to psychological distress which requires specialist help. Chronic diseases are often the cause of psychosocial and/or mental disorders, such as depression.

Handicap International is committed to diabetes control for several reasons:

- In our intervention zones, the needs, in terms of the diabetes and other cardiovascular risk factors epidemic, are immense
- Whilst there are low cost effective interventions which can be put into place, the health systems in developing countries are not always able to do so
- As disabling diseases, diabetes and other cardiovascular risk factors fall under the organisation's scope of activity
- The international mobilisation against this epidemic is still emerging.

# How Handicap International works in the field of diabetes and other cardiovascular risk factors



## Link with the Disability Creation Process

Diabetes-related impairments can lead to long-term impairments: physical, sensorial, psychosocial, psychological (or “mental”, as used in the Convention on the Rights of Persons with Disabilities) and intellectual (dementia) which, in interaction with various environmental and social barriers may hinder the full and effective participation in society of persons living with diabetes and thus place them in disabling situations.



## Access to drugs

Access to drugs/medicines must be the cornerstone of all actions targeting non-communicable diseases, although actions in partnership with the competent authorities should be made a priority.

It is important to bear in mind that lifestyle changes are generally not sufficient to control diabetes and other cardiovascular risk factors, and that generally speaking, medical treatment must also be provided.

Handicap International uses an integrated approach to: bring about the prevention of non-communicable diseases (primary prevention); to provide health care for all those living with diabetes and cardiovascular risk factors; and to support advocacy work in order to encourage full social participation. So, depending on the needs in each context, preventative, curative, rehabilitation, social and economic inclusion and advocacy actions can be implemented by Handicap International, using cross-disciplinary expertise in synergy with community networks.

The intervention methods adopted are as follows:

- **Modality 1 - Promoting services for the prevention of non-communicable diseases**
- **Modality 2 - Developing access to medical care**
- **Modality 3 - Developing tertiary prevention activities**
- **Modality 4 - Developing advocacy work**
- **Modality 5 - Developing actions to improve access to services**

Based on an initial needs assessment, the intervention methods depend on the context, and actions and resources already in place. There are two strategic positions:

- **General strategic positioning**, which is justified in cases where no other non-governmental stakeholders are working on diabetes control and cardiovascular risk factors in the field. It takes into account three levels of intervention (primary prevention, medical care, rehabilitation), and is intended to coordinate the efforts of different stakeholders. It is recommended that Handicap International first addresses the issue of medical care to prevent disabling complications (secondary prevention). It is then possible to implement disease prevention activities (primary prevention) and rehabilitation for diabetics and people living with cardiovascular risk factors with disabilities (tertiary prevention). We do not recommend starting with screening as this leads to a situation in which the people with diabetes have been identified but cannot be referred to high quality health centres. Furthermore, it is recommended to strengthen the care offer prior to implementing screening actions.
- **Positioning focused on one or more intervention methods**, which is justified in cases where other non-governmental stakeholders are active in the field. In this case, Handicap International encourages the creation of networks of stakeholders and implements, specific actions according to the needs identified to complement the interventions of other stakeholders.
  - Strengthening rehabilitation services for people living with diabetes and other cardiovascular risk factors with disabling complications (prevention of diabetic foot, providing care for amputees, and patients with paralysis, hemiplegia, visual impairments, arteritis or heart failure)
  - Social and psychological support
  - Social, professional and educational inclusion
  - Adapted physical and sports activities
  - Primary prevention.



## Strategic positioning in relation to external public health guidelines

Under the framework of Handicap International's projects, we advise to follow recommendations made at national level, if these conform to the most recent international guidelines, and are adapted to the context. If these do not exist, we then suggest referring to international recommendations such as:

- The comprehensive, integrated approach to non-communicable diseases promoted by the World Health Organization
- World Health Organization health promotion approach
- International Diabetes Federation Guidelines, on global clinical practice on care management for people with diabetes, and on diabetic foot.

## Quality approach and impact

The quality of an action is, in part, based on the assessment of its results. Specific diabetes indicators exist and teams are encouraged to integrate a monitoring/evaluation system that measures these indicators into the project design from the outset. It is recommended that the activities are launched via pilot projects deployed across limited geographical areas. This pilot phase make it possible to define, draw up, evaluate, improve and model intervention methods, training content, different tools etc at local level. It is then possible to replicate the intervention model in another area, or to carry out advocacy work for the institutional implementation of the intervention model, or support this implementation, whilst ensuring that the end users do genuinely benefit from the action.

## Links with other areas of Handicap International's work

- **Rehabilitation services and the accessibility of health centres** are essential for people with diabetes with a disabling complication (blindness, hemiplegia, chronic ulcer and lower limb amputation) but also to prevent amputations.
- Persons living with chronic diseases often need access to **psycho-social support**.
- Persons living with chronic diseases may well have difficulties accessing education or employment or participating in the social norms of their peers (marriage for example). **Educational, economic and/or social inclusion actions** (included physical exercises) can be put into place.
- Diabetes projects can incorporate **support for civil society** and for organisations of people with diabetes to implement their projects and assert their rights.



## Work perspectives for 2011-2015

- Strengthen/consolidate existing prevention and control projects targeting non-communicable diseases
- Develop new projects, especially in Asia, North Africa, the Middle East and South America
- Develop rehabilitation cares for people living with diabetes and other cardiovascular diseases related disabilities
- Strengthen the link between the treatment of non-communicable diseases, rehabilitation care and psychosocial support
- Develop expertise in strengthening the needs analysis, ordering and distribution systems for drugs and medicines
- Ensure interventions are more inclusive of vulnerable persons, in particular people with disabilities
- Develop Handicap International's approach to primary prevention activities to move towards an integrated approach targeting several non-communicable diseases and a health promotion approach: promoting healthy lifestyle through multisectorial responses, combining different types of activities such as education and advocacy.