



WORLD **DIABETES** FOUNDATION

ANNUAL REVIEW 2003

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The human and economic costs of diabetes could be significantly reduced by investing in prevention and early detection, which can help avoid the onset of complications





## **“WE WILL FIND A WAY OR MAKE ONE”**

Going into 2004, the World Diabetes Foundation has supported more than 20 projects and engaged in many important partnerships during its first two years of existence. Project results – quantified by our monitoring system – are starting to appear, and testify to the Foundation’s approach of supporting sustainable projects at the local level.

“We will find a way or make one.”

Quote:

Hannibal (247-183 B.C.), Carthaginian general and statesman, defeated the Great Roman Army in the French Alps using Indian elephants to move troops and supplies – something believed to be impossible at the time

A lot of time and effort has been devoted to the important tasks of establishing procedures and developing monitoring and evaluation systems. It has been deemed important to have the structures and systems in place to ensure correct and optimal utilisation of the Foundation’s resources in our projects. In order to be able to communicate these achievements, a strong platform of communication materials has been developed, including a newly updated website and documentary videos.

### **Time to take a stand**

However, based on the preliminary results of our projects and experience to date, the time has come for more in-depth review and strategic discussions on precisely where and how the World Diabetes Foundation should position itself. In other words, where and how can we make a difference in the long term? Where will our resources be

catalytic, and how do we ensure the provision of diabetes care for the societies and individuals who cannot afford treatment? These discussions will include an assessment of potential pro-active areas of work such as the diabetic foot, gestational diabetes etc., as well as potential partners, and how to use the partnership model strategically to ensure that, through our combined efforts, we accomplish more.

This work will go hand in hand with the introduction of a broader and more targeted communication effort to ensure greater visibility for the World Diabetes Foundation. The aim of such an effort is to help facilitate more partnerships and funding, and ultimately to facilitate more sustainable projects, reaching more people with diabetes in the developing countries.

Global awareness of diabetes – particularly as it pertains to developing countries – remains low.



We are frequently met with the comment that diabetes is only a problem in the western world. To bring diabetes higher up on the global political and charitable agenda, the World Diabetes Foundation must reach out to a group of influential and well-connected potential future allies. People who can help put diabetes in developing countries on the agenda within their organisations. People who can address and influence decision-makers in the political and charitable arenas and perhaps even create a group of high-profile diabetes ambassadors – friends of the World Diabetes Foundation.

#### **Focus on areas of impact**

In the years ahead, the World Diabetes Foundation will seek to form partnerships with relevant foundations and commercial partners in order to generate awareness and results on particular issues and projects. We will develop a set of partnership and communication platforms evolving around relevant issues and areas of specific impact, such as:

- The diabetic foot
  - prevention of amputations

- Eye screening
  - detection of diabetes, prevention of blindness
- Children with diabetes
  - prevention, education, treatment
- Mothers and diabetes
  - nutrition, prevention, education

Commercial partners should be companies that have a relevant interest in a particular area, with or without a proven track record of supporting projects on a corporate responsibility basis. The image of the World Diabetes Foundation and all our non-commercial partners must be borne in mind when selecting commercial partners.

To ensure the linkage between the strategic platform of the World Diabetes Foundation and the project and partnership portfolios, a more pro-active approach to identifying partners and formulating projects in close collaboration with our partners is envisaged in the years ahead. It is our hope that this approach will increase the catalytic and synergetic effects of our funding.

#### **The Board**

World Diabetes Foundation



## ANNUAL REVIEW 2003

It is estimated that India and China are carrying the burden of more than half the world's newly diagnosed cases of diabetes. Of 194 million people with diabetes worldwide, 120 million live in developing countries, and by 2025 this figure is expected to double to 240 millions.

People living on or below the poverty line tend to be diagnosed late and have less access to treatment. As a result, they suffer more acute, late complications such as blindness, kidney and heart failure, and amputations. Since diabetes is a lifelong condition and the majority of people with diabetes do not have health insurance, the cost of medicine can drive people living with diabetes into a downward spiral of debt and poverty.

In the future, diabetes will increase in urban areas. Socio-economic changes play a major role in the rising incidence of diabetes. Aging populations, families that are urbanised as they seek employment, rapid industrialisation and rising levels of obesity associated with changes in diet and decreased physical activity are all contributing factors.

### Obesity alongside undernutrition

Traditional nutritious diets are being replaced by poor-quality, western-style cooking using more fat, salt, sugar, oil and meat. Obesity is now a public health problem in urban areas. The prevalence is rising, and obesity often exists alongside undernutrition.

Diabetes used to be viewed as a rare disease in Africa. In the last 30 to 40 years, this situation has changed. In Cameroon, 35% of the adult population is obese. Diabetes is now regarded as a major health problem throughout the continent. Diabetes is a serious burden on African countries already

stretched to the limit by common life-threatening infections such as malaria, tuberculosis and HIV/AIDS.

Policy-makers must approach prevention through awareness and education programmes, but they must also promote healthy living and create incentives for industry and individuals to reinforce this development.

Developing countries cannot afford to treat the increasing burden of diabetes complications. It is therefore of utmost importance that we take action now to prevent or limit the burden of a chronic disease that could threaten economic and social development in the world's poorest countries.

There is an urgent need for a multi-sectoral approach in which governments, the pharmaceutical industry, national diabetes associations, healthcare providers and people with diabetes can work together to provide at least minimum standards of care to help those affected. The aim of the World Diabetes Foundation is to work as a catalyst in bringing these key players together in a fruitful joint action.



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Pierre Lefèbvre

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The prevalence of diabetes in Tanzania varies between urban and rural districts. In the rural districts it is 2-3% while in Dar es Salaam it is as high as 6%, and 10% among the city's Asian minority

A handwritten signature in black ink that reads "Pierre Lefèbvre". The signature is written in a cursive style and is underlined with a single horizontal line.

Professor Pierre Lefèbvre  
Chairman  
World Diabetes Foundation



## A RESULT TO BE PROUD OF

2003 was a year in which the World Diabetes Foundation was highly active. We are now supporting 22 projects, of which nine have been launched within the last year. All our activities have been carried out within strict financial limits as we strive to maintain our low level of administration costs.

The World Diabetes Foundation seeks to bring diabetes higher up on the global healthcare agenda by entering into collaboration with recognised institutions in the areas of health, diabetes and development aid. Through these partnerships we aim to raise global awareness of diabetes and help find the resources to address and potentially limit the epidemic.

The Memorandum of Understanding that was signed with the Danish International Development Agency (Danida) in 2002 led in 2003 to collaboration on two new projects in India and Bhutan.

### Global partnership with WHO and IDF

The World Diabetes Foundation is supporting a global collaboration project between the World Health Organization (WHO) and the International Diabetes Federation (IDF) entitled: Diabetes Action Now. This initiative represents the major part of the future WHO diabetes programme. A consultation process preparing the ground for further action is expected to be carried out during the spring.

Working with WHO at a national level, the World Diabetes Foundation has launched a diabetes project in Vietnam. This involves a community approach to prevention, control and management of diabetes with the aim of improving the quality of diabetes care in that country.

The World Diabetes Foundation has launched a number of projects with the IDF to increase

capacity and raise awareness of diabetes.

Two such projects are the Diabetes Education Guidelines and the Clinical Practice Guidelines. These two sets of guidelines will be finalised during the summer of 2004, and will then be distributed throughout sub-Saharan Africa.

### Sustainability through local commitment

In order to minimise the risk of failure and maximise the likelihood of success and sustainability, we ensure strong local commitment to our activities. We work with highly competent organisations and project leaders. We focus on close dialogue within our partnerships. And we support our partners in addressing problems and driving positive project processes.

Our present project portfolio will have an estimated direct impact on 18 million people in developing countries. These are people directly exposed to training, improved care, and increased personal awareness of treating diabetes. Around 50 million people will potentially be affected indirectly by the project activities, through media campaigns, word of mouth and distribution of publications. A result to be proud of.



^  
Leif Fenger Jensen

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The prevalence of diabetes has reached epidemic proportions. WHO predicts that developing countries will bear the brunt of this epidemic in the 21st century, with approximately 80% of all new cases of diabetes expected to appear in the developing countries

A handwritten signature in black ink, appearing to read 'Leif Fenger Jensen'. The signature is fluid and cursive.

Leif Fenger Jensen  
Managing Director

World Diabetes Foundation



## MAKING SURE THAT WE MAKE A DIFFERENCE

“We don’t act like auditors, wanting to check every receipt and leave no stone unturned.

Quite the opposite: we see ourselves as partners and focus on collaboration.” These were the words of Programme Manager Sanne Frost Helt from the World Diabetes Foundation when she was asked to illustrate how projects are monitored and evaluated.

The World Diabetes Foundation has developed a number of procedures for monitoring and evaluating the projects it supports. Monitoring is now organised into a system which determines the need for monitoring each individual project on the basis of an assessment of the project’s size, complexity and duration.

The monitoring system includes regular reporting on a project’s progress and finances. Personal contact – in the form of field visits, meetings and telephone and e-mail contact with project partners – is also an important element in the monitoring process. The constituent parts do not stand alone, but together provide a holistic impression of the project.

“High priority has been given to the system providing us with the information needed to ensure that our funding is used correctly and achieves the intended goals,” Sanne Frost Helt explains. “However, when developing the system it has been equally important to ensure that this does not result in an unnecessary reporting burden for our partners.”

The aim is for problems and departures from the jointly set milestones to be identified as soon as they arise. It is too late to tackle problems once the project is complete. Experience shows that a project is a dynamic process which may need to be fine-tuned along the way.

### Lessons learnt

It is important to be able to build on experience gained both from development aid in general and from specific projects, as this promotes the best possible use of resources. To make sure that this

happens, the Foundation is establishing a database to bring together a wealth of practical experience and results from projects that it has supported. Great importance is attached to the system’s usefulness as an analytical tool for ensuring that future projects can draw on both positive and negative experience and results from previous projects. The system will provide a better basis for identifying and selecting new focus areas and projects.

### In the field

Field visits ensure that the parties have an opportunity to meet face-to-face. Experiencing the project context first-hand gives everyone a much better impression of both potential benefits and potential problems.

It is an intensive process, involving meetings with decision-makers, authorities and health ministers; visits to the clinics where impact is most visible; and discussions with healthcare professionals, patient associations, patients and their families. The aim is to cover as many aspects and levels of the treatment of diabetes as possible within a relatively short period. The World Diabetes Foundation considers it important for the visit to take the form of a dialogue in which the partners work together to get the project running as smoothly as possible.

“Ultimately our monitoring system aims to ensure that the Foundation’s funding is put to the best possible use for people living in parts of the world where access to high-quality diabetes treatment and medication is more the exception than the rule,” says Sanne Frost Helt.

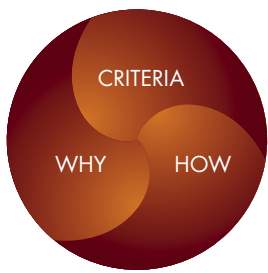


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In Egypt, for example, consumption of cooking oils has risen significantly with rising incomes, with a corresponding increase in obesity. Almost 60% of women in Egypt are obese, which is more than in many industrialised countries

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Halfan Muhingo from Tanzania has type 2 diabetes

## FIGHTING THE BURDEN OF DIABETES IN CAMEROON

The first field visit recently took place in Cameroon, where the World Diabetes Foundation is funding a highly ambitious project run by HoPiT Research Group under the management of Professor J.C. Mbanya. The visit was made by Vice Chairman Anil Kapur and Programme Manager Sanne Frost Helt from the World Diabetes Foundation.



### MONITORING

#### WHY

- To influence project success
- To collect practical lessons to guide future projects
- To ensure sharing of experience and best practices

#### HOW

- Monitoring visits at project site
- Meetings with project partners and stakeholders
- Regular dialogue
- Narrative reporting
- Financial reporting

#### CRITERIA

- Project complexity
- Duration
- Financial size
- Experience of implementation by the partner

The aim of the project is to pave the way for a national diabetes plan in Cameroon by building up a system for monitoring, treating and preventing the disease. More than EUR 1.3 million has been earmarked so far, and a project of this size must be monitored closely to identify any problems or delays – and, just as importantly, resolve them.

The five-day field visit took place in the city of Yaoundé and the district of Bamenda, some six hours' drive to the north-west, thus covering both urban and rural areas. The programme included visits to several diabetes clinics and discussions with patients, the president of the country's diabetes association, diabetes educators, doctors and nurses, and several officials from Cameroon's health ministry, not least the country's health minister.

"We're seeing good synergy effects in diabetes treatment in Cameroon as a result of the project," says Sanne Frost Helt. "The country's government has now decided to formulate a national diabetes policy and action plan. Even more importantly, the health ministry has asked for next year's budget to include money for activities in this area. This is in recognition of the scope of the problem and its potential impact on the country's economy."

If you have any comments or questions about the World Diabetes Foundation's monitoring programme, please contact Programme Manager Sanne Frost Helt: [sfhe@worlddiabetesfoundation.org](mailto:sfhe@worlddiabetesfoundation.org)

## MONITORING TOOLS

### MONITORING VISITS

Monitoring visits at field level are carried out once or twice a year. The frequency depends on the project's complexity, duration and financial size, and our experience of implementation by the partner. The purpose is to obtain a first-hand impression of achievements in relation to the project plan, and to discuss progress and obstacles with the partner.

The focus is on learning best practices, sharing experience, and finding solutions in collaboration. As a supplement to visits at field level, regular meetings are held with project partners to discuss progress in implementation and obstacles encountered.

### NARRATIVE REPORTING

Depending on the project duration, the partner is required to submit the following reporting:

- Semi-annual progress reports focusing on implementation of activities, major achievements, problems faced and solutions found
- Project completion report providing an analysis of achievement of project objectives, design, impact and sustainability. It enables identification of positive and negative lessons learnt

For evaluation purposes, the following reports are used on a case-by-case basis depending on project duration and complexity:

- Mid-term evaluation analysing and describing project achievements presented against the plans outlined in the project document. It discusses initial lessons learnt and the needs for possible adjustments of the project
- Final evaluations carried out at the request of the World Diabetes Foundation

### FINANCIAL REPORTING

The full grant is not disbursed at once but is gradually released based on accomplishment of a set of milestones agreed in the contract. All projects are required to submit the following financial reporting to document the correct utilisation of the grant:

- Quarterly cash flow reports
- Annual and final audited accounts



## FOCUS ON INDIA

India has the world's largest number of people with diabetes, with over 32 million affected. Every eighth Indian above the age of 20 years living in a metropolis has diabetes, and perhaps one in four is a potential candidate. This number is growing at almost epidemic proportions in urban India and is expected to more than double by 2025.

"Increasing urbanisation, industrialisation and changing lifestyles seem to be contributing to the increasing prevalence of diabetes. Diabetes is placing an enormous socio-economic burden on patients, their families and society as a whole. At present, India does not have the systems in place to meet the needs and expectations of the vast population with diabetes," says Vice Chairman of the World Diabetes Foundation, Anil Kapur.

The age-standardised prevalence rate in adults above the age of 20 years is 12.1%, and an additional 14.2% are found to have impaired glucose tolerance according to The National Urban Diabetic Survey conducted by the Diabetes Epidemiology Study Group in India (DESI) in association with the Novo Nordisk Education Foundation. In the case of impaired glucose tolerance, the blood glucose levels are high two hours after ingestion of glucose. The person is not

in the diabetes range yet, but considered to have a pre-diabetes condition.

### Higher risk for Indians

According to experts, genetic factors as well as changing diet and lifestyle patterns are contributing to India's burgeoning diabetes epidemic. Asian Indians are genetically susceptible to diabetes. For a given body weight, the risk of diabetes is higher in Asian Indians than in Caucasians.

Economic progress and urbanisation have led to an excessive consumption of calories, sugars and fats accompanied by a sedentary lifestyle. Studies show that Indians are likely to get type 2 diabetes about a decade earlier than Caucasians. The early onset of diabetes, coupled with an increasing life span, could burden India with a large number of patients with secondary health complications.





## EASING THE BURDEN OF DIABETES IN INDIA

Another project in India is aiming to improve diabetes healthcare provision. It forms an important part of the capacity building for the implementation of the National Diabetes Control Programme for India formulated on the initiative of the Government.

Professor A. Ramachandran chairs the expert committee with the task of formulating the programme. He is the director of the M.V. Hospital for Diabetes & Diabetes Research Centre, which is a WHO collaborating centre.

The project, which is supported by the Foundation with an amount equivalent to USD 1,331,735, aims at capacity building by training doctors, community health nurses, nutritionists, and other paramedical workers. Inter-sectoral coordination between governmental, non-governmental and private sectors will also be established over the three-year project duration. The project hopes to cover the states of Kerala, Gujarat, Karnataka, Delhi, Andhra Pradesh and Tamil Nadu.

### Last year's achievements

In the last year, the project has achieved the following in its capacity-building endeavours:

- Constitution of steering committee, advisory board and curriculum development committee
- Identification of target states
- Commitment of state governments and IMA
- Determination of research tools
- Design of curriculum and methodologies
- Selection criteria for doctors and nurses agreed
- Finalisation of the course curriculum

"The project seeks to ensure access to effective and affordable diabetes care for the Indian population. The main focus is on training doctors, nurses, paramedics and specialists, as well as people with diabetes, their families, policy-makers and decision-makers, and the general public," says Professor Ramachandran.

The training of medical staff will take place in the form

of diabetes workshops for 3,000 doctors, enabling them to deliver primary and secondary diabetes care. More than 1,000 community nurses will be trained so that they can raise awareness of diabetes in local communities. In addition, 180 foot care specialists, nutritionists and diabetes self-care educators will receive full-time training for two months.

### Diabetes care for 7.5 million people

"Our goal is to build capacity to provide diabetes care for 7.5 million people with the disease. Among other things, this can hopefully reduce the number of amputations by at least 25%, i.e. a minimum of 19,000 legs saved among the 7.5 million people reached," says Professor Ramachandran.

"Today many people present to doctors on their first visit with many established complications of diabetes. This is due to lack of knowledge of the disease. Also, even when people are diagnosed with diabetes they do not receive appropriate screening and treatment, resulting in poor control and complications. Building capacity in healthcare professionals and compliance with guidelines for treatment are the needs of the hour," says Dr Anil Kapur, Vice Chairman, WDF.

"Ensuring access to effective and economically affordable diabetes care for the population in the rural, semi-urban and urban areas is essential for prevention and reducing diabetes-related complications. In order to build the capacity of healthcare professionals, ensuring coordination between the governmental, non-governmental and private sectors is essential. Utilising the existing infrastructure of the public, NGO and private healthcare systems is the key," says Professor Ramachandran.



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Ambady Ramachandran

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Fatima Rehman from India does not have diabetes – yet. Her mother and grandmother both have diabetes, as does her grandfather. Her risks of developing diabetes are more than 75%

## ACTIVITIES 2003



### GLOBAL

- 1 **DIABETES ATLAS** WDF02-027
- 2 **DIABETES ACTION NOW** WDF02-028
- 3 **IDF/WDF FELLOWSHIPS** WDF02-042

### LATIN AMERICA

- 4 **BOLIVIA**  
Diabetes Centre WDF02-015
- 5 **CUBA**  
Regional Diabetes Centres WDF02-020
- 6 **THE CARIBBEAN**  
Nutrition Protocol WDF03-045

### FUNDRAISING ACTIVITIES

- A **EL SALVADOR**
- B **TANZANIA**
- C **INDIA**
- D **BANGLADESH**
- E **VIETNAM**



## AFRICA

- 7 **SUB-SAHARAN AFRICA**  
Diabetes Education WDF02-006
- 8 **SUB-SAHARAN AFRICA**  
Clinical Practice Guidelines WDF02-007
- 9 **CAMEROON**  
Cameroon Burden of Diabetes WDF02-016
- 10 **MOZAMBIQUE**  
Insulin Availability WDF02-019
- 11 **TANZANIA**  
Diabetes Clinics WDF02-031
- 12 **DEMOCRATIC REPUBLIC OF CONGO**  
Insulin Availability WDF02-041
- 13 **TANZANIA/INDIA**  
Diabetes Foot Care WDF03-056
- 14 **TANZANIA**  
Diabetes and Hypertension WDF03-058
- 15 **SUDAN**  
Diabetes Care WDF03-061

## MIDDLE EAST AND ASIA

- 16 **WEST BANK**  
Diabetes Prevention and Nutrition WDF02-010
- 17 **VIETNAM**  
National Diabetes Project WDF02-013
- 18 **CHINA**  
National Diabetes Programme WDF02-036
- 19 **INDIA**  
Diabetes Eye Care WDF02-039
- 20 **INDIA**  
National Diabetes Programme WDF03-052
- 21 **INDIA**  
Diabetes Prevention and Control in Raipur  
WDF03-055
- 13 **INDIA/TANZANIA** (Also mentioned under Africa)  
Diabetes Foot Care WDF03-056
- 22 **NEPAL**  
Diabetes Education and Prevention  
WDF03-059



## TREATMENT IN SIGHT

One of the major complications of diabetes is blindness, also known as diabetic retinopathy. Diabetes is one of the most common causes of blindness, and the toll on India is increasing: 20 years ago it was number 17 in the list of causes of blindness in India. Today it is number six. Early detection and treatment significantly reduces the risk of blindness. But today access to specialist help is very limited, especially in more remote areas.

The World Diabetes Foundation supports a diabetes eye project in India that aims to reduce blindness resulting from diabetes. The project is being carried out in cooperation with Aravind Eye Hospitals, Lions Club International and the Government of India.

The Diabetes Eye Care project will establish one-day camps for diabetic retinopathy screening in rural communities around the Madurai, Theni, Kanyakumari, Tuticorin and Tirunelveli districts. A total of 36 camps will be held focusing on diabetic detection and screening for retinopathy, glaucoma and cataracts. In addition, a mobile unit will be equipped with screening equipment and will serve remote areas as well as the established diabetic centres and general hospitals.

Around 100,000 people will be screened for diabetes at these camps as well as at Aravind's routine cataract screening camps. Awareness will be raised through the media, the distribution of relevant educational materials to medical professionals, and seminars, workshops and community health education programmes.

### Model for free eye care

Under the leadership of Dr G. Venkataswamy, the first Aravind Eye Hospital was founded in 1978 with the mission to eradicate needless blindness. Much importance is given to ensuring that all patients are accorded the same care and high-quality service, regardless of their economic status. Due to a unique fee system, Aravind is able to provide free eye care to two thirds of its patients from the revenue generated from the other third of its paying patients.

## RESULTS TO DATE

- The Aravind Eye Hospital has set up a teleconsultation link using new tele-ophthalmology software between Madurai, Theni and Tirunelveli
- A mobile van for screening diabetic patients is being developed. This van will have satellite connectivity with a reading and grading centre to be set up soon at Aravind Madurai for tele-consultation
- A tertiary care centre has been set up at the retina clinic, Aravind Eye Hospital, Tirunelveli, to facilitate diagnosis, investigation and examination of diabetic retinopathy patients. This centre serves a population of 6.0 million people in Tirunelveli, Kanyakumari and Tuticorin
- As part of awareness creation, till date, the project has already run five seminars for medical officers of primary health centres (PHCs), six seminars for paramedics and two seminars for medical shop owners and representatives from NGOs, as well as holding four exhibitions
- Through the community outreach screening programme, around 7,736 people have been screened for diabetes and 3,097 have been identified as having diabetes. Of these 413 have been found to have diabetic retinopathy. A total of 204 persons have undergone laser treatment
- A permanent remote rural screening centre has been established at Aravind Eye Hospital, Theni. People with diabetes are screened for diabetic retinopathy by the general ophthalmologist through digital imaging; the images are then transmitted via the Internet to Aravind Eye Hospital, Madurai, where the reading and grading centre is located



^ The hallmarks of the Aravind model are quality care and productivity at prices everyone can afford. A core principle of the Aravind system is that the hospital must provide services to rich and poor alike, yet be financially self-supporting

< Pavithra Krishnan is communications coordinator at Aravind and third generation devoted to eye care



## STEP BY STEP

Improving diabetes foot care and preventing amputation is also a major goal in The Diabetes Foot Care Project conducted in India and Tanzania.



Kasturi Ramachandran from India has type 2 diabetes



In June 2003 she underwent an operation on her left foot due to a diabetic foot ulcer. In March 2004 her eyesight is very blurry because of the disease

Many people with diabetes lose the sense of feeling in their feet and may not be aware of skin injuries developing into infected ulcers. Left untreated, the infection spreads, leading to gangrene, which can then necessitate amputation. Amputation rates related to diabetes are to a large extent preventable and can be reduced by 49-85% if strategies for preventing and treating foot lesions are implemented. The steps include regular inspection of the feet, early detection of loss of sensation, follow-up on high-risk patients, and patient education.

The project will create awareness of diabetic foot problems in India and Tanzania, and provide sustainable training for healthcare professionals managing the diabetic foot. Three-day training

courses are being conducted in India and Tanzania for more than 100 medical teams of doctors and nurses.

### 40,000 legs lost to diabetes

In India, as many as 40,000 lower limbs are amputated every year, most of them due to diabetes. In Tanzania, around 1 million people have diabetes. 33% of patients admitted for diabetic foot ulcers undergo amputation, with a 54% mortality rate in patients who present late.

"The project can hopefully reduce the incidence of amputations resulting from the diabetic foot by 50% in target areas. In India, this would mean 3,600 legs saved, and in Tanzania 600 legs saved," says project advisor Karel Bakker.

## GROUND-BREAKING PARTNERSHIP WITH DANIDA

On 13 March, 2002 the Danish Minister for Foreign Affairs, Per Stig Møller, signed a Memorandum of Understanding with the World Diabetes Foundation.

For the first time, Danida – the Danish International Development Agency – has entered into a cooperation with the business community to strengthen efforts in the health sector to help the world's many poor people.

Danida saw some very exciting prospects in the cooperation, which is an extension of the Danish government's desire to establish public/private partnerships in the area of aid. The partnership between Danida and WDF is the first specific outworking of such a cooperation.

"WDF focuses on a non-infectious disease, namely diabetes. This is distinct from the infectious diseases such as HIV/AIDS, malaria and tuberculosis that are a main emphasis of Danish development aid. We regard the partnership with WDF as highly suitable for contributing in this important field because the growing diabetes epidemic in the third world has increasingly become a problem of poverty. This complementarity in the partnership ensures our participation in vital activities in countries that are not our main cooperation partners, for example India," says Carl Christian Hasselbalch, Deputy Head, Department for UN Development Assistance, Ministry of Foreign Affairs.

### Diabetes is a growing problem

"The Danish embassy in India has long been highly aid-oriented, and in recent years the cooperation with the private business community has assumed major importance. In Indian states such as Chhattisgarh we have been taking part for the last 15-20 years in major health projects in the rural districts that have focused in particular on infections. Now we can make excellent use of this network and the infrastructure that Danida has helped to build up over many years in the area to also make an effort in the matter of diabetes, which is a rapidly growing problem in India,"

explains Ambassador Michael Sternberg. Other projects are also on the ambassador's drawing board. Investigations are currently underway into the feasibility of a similar diabetes project in Bhutan, which the Danish embassy in India also covers.

The ambassador points out that it is always difficult getting things started and that the first project has been somewhat slower to get up and running than expected. This is due to the fact that all the partners have had to sound out each other's objectives and methods, and how the project would hang together administratively.

"All in all, the cooperation has been fantastic. We worked well right from the start, and the good experiences and relations can be used in a future Bhutan project," says Michael Sternberg.

### Problems resolved

"Naturally the plan for a cooperation with WDF raised a number of questions in the Ministry of Foreign Affairs. Would it take time and money away from other Danida activities, or would our priorities in the health sector become distorted? This gave rise to considerations of whether it was at all practicable to enter into a cooperation with WDF. The bottom line is that companies essentially have to make money, something that does not seem immediately compatible with humanitarian aid work. But these problems were quickly resolved," says Carl Christian Hasselbalch.

"The negotiations leading up to the signing of the Memorandum of Understanding went perfectly



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The partnership with Danida enables the integration of diabetes care into the general development assistance to the health sector

“It is good to see that Danish companies are increasingly becoming more involved in the societies in which they operate. The cooperation between the World Diabetes Foundation and the Danish Ministry of Foreign Affairs is a shining example of a public/private partnership benefiting health development in developing countries. The Danish Government’s Public/Private Partnerships initiative can draw much inspiration from the partnership with the World Diabetes Foundation, one which I am sure will continue to produce good results in the future.

Per Stig Møller

Minister for Foreign Affairs, Denmark



because we had first made ourselves aware of what the priorities on both sides were and what we individually could offer in terms of competences,” explains Carl Christian Hasselbalch.

“As part of the cooperation, Danida will contribute technical advice. We have good local knowledge and good contacts in the health sector, and we are also familiar with the general health policy in the country. This has proved very useful for WDF. Similarly, we can contribute by absorbing WDF’s projects into an overall scheme in the aid work in the country in question. For Denmark it is first and foremost a matter of strengthening the health sector and the primary healthcare in the individual country starting with the government’s own priorities in the area.”

#### Several projects required

“There are absolutely no problems in the daily cooperation. The Danish development aid has become decentralised and is run from the individual embassies. As well as the first project in India and a second on the way in Bhutan, several African projects are planned. We would actually like even more activities than the relatively limited number that the partnership has provisionally

produced,” states Carl Christian Hasselbalch. Ambassador Michael Sternberg of the Danish embassy in India believes that other embassies could benefit from entering into similar cooperations. “This is in the Memorandum of Understanding. In practice it’s up to WDF how much they wish to expand. In principle it could be anywhere, although it would be easiest in countries where Denmark and Danida already have a profile in the health sector, and where the nation is a cooperation country for Danish development aid. Then the work could be built up on and coordinated with other relevant aid activities and sector programmes that are supported by Danida.”

#### AREAS OF COLLABORATION

- Building capacity within the primary health service
- Documentation, analyses and research on diabetes-related problems in the aid context
- Monitoring
- Information about nutrition and support for preparation of strategies for improved nutrition and healthy lifestyle, including scaling-up of pilot projects
- Education
- Distribution and procurement of essential drugs as part of supported projects

Although infectious diseases still constitute the leading cause of mortality and morbidity in developing countries, WHO predicts that non-communicable diseases such as diabetes, cardiovascular disease, cancer and chronic respiratory diseases will become the world’s main disablers and killers within the next 25 years

## PICTURE GALLERY

A picture paints a thousand words... and so the emphasis in the following pages – the World Diabetes Foundation Photo Gallery – is on letting the pictures tell the story of the global diabetes epidemic.



The pictures speak to both the heart and mind, showing the many aspects of a serious illness and its complications through portraits of people affected by diabetes in developing countries.

All the people shown lead lives with diabetes as an unwanted partner – either as patients, relatives or healthcare professionals. The camera tells their story – often more effectively than many words.

In the most powerful way, the pictures show some of the faces behind the incomprehensible statistic that around the world there are millions of people with diabetes. And there is a growing number of seriously ill people that the World Diabetes Foundation is aiming to help.

The photographs in the gallery were taken by Danish photographer Jesper Westley, who has chosen to dedicate much of his work to assisting the World Diabetes Foundation in its fight against diabetes throughout the world.



Because of the chronic nature of the disease, the severity of its complications and the means required to control them, diabetes is a costly disease.

Mechanisms for financing healthcare are non-existent in most developing countries, and health costs therefore typically represent out-of-pocket expenditure.

According to WHO, 80% of people in developing countries pay directly for some or all of their own medicine. In many instances, the choice is between healthcare and food or clothing, and such financial constraints inevitably result in under-consumption of healthcare services

## DIABETES FOOT CARE

Many people with diabetes lose the feeling in their feet and may not be aware of skin injuries developing into infected ulcers. Left untreated, the infection spreads, leading to gangrene, which then necessitates amputation.



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Diabetes is the most common cause of amputation after accidents. People with diabetes are 15 to 40 times more likely to require a lower limb amputation than the general population

40-70% of all lower limb amputations in the world are related to diabetes. 85% of all diabetes-related foot/leg amputations begin with a foot ulcer. In India, 32 million people have diabetes. Rough estimates indicate 40,000 lower limb amputations per year, most of them due to diabetes.

In Tanzania, around 1 million people have diabetes. 33% of patients admitted for diabetic foot ulcers undergo amputation, with a 54% mortality rate in patients who present late.

Diabetes-related amputations are to a large extent preventable if simple measures are taken. Evidence shows that amputation rates can be reduced by 49-85% if strategies for preventing and treating diabetic foot lesions are implemented.

## DIABETES CLINICS IN TANZANIA

Diabetes is one of the most important non-communicable diseases in Tanzania. A 1997 study indicated a diabetes prevalence of nearly 6% in Dar es Salaam. The prevalence for Tanzania as a whole is estimated at 2.3%.



At present diabetes is managed in only a few locations. The necessary infrastructure in terms of trained workers, equipment and drugs is not available at most levels. As a result, a large number of people with diabetes remain untreated. Many have not been diagnosed, or have even been misdiagnosed. In the case of those who do receive treatment, the treatment is often poor and inadequate.

The project aims to improve access to proper treatment and raise the quality of diabetes care in Tanzania. 15 diabetes clinics are being set up throughout Tanzania within the Ministry of Health structure.

Teams of doctors, nurses and laboratory technicians for each clinic were given training in December 2003. They have now returned to their duty stations to set up the clinics armed with a starter kit containing i.a. a glucometer, blood and urine strips, a stethoscope, an ophthalmoscope, and a manual.

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Tanzania, which has a population of more than 30 million, is one of the poorest countries in Africa. The annual expenditure on healthcare is just USD 2 per person. More than 350,000 people have diabetes in Tanzania, and the number is growing rapidly

## REGIONAL DIABETES CENTRES IN CUBA

Cuba has around 300,000 people with diabetes. Diabetes is the seventh most common cause of death in the country.



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Cardiovascular disease is the no.1 cause of death in industrialised countries and is also set to overtake infectious diseases as the most common cause of death in many parts of the developing world. People with diabetes are two to four times more likely to develop cardiovascular disease than people without diabetes

The project aims to improve diabetes care in Cuba by completing the national network of medical care centres for people with diabetes.

This project is a collaboration between four partners: the National Institute of Endocrinology in Cuba, the charitable organisation Humanitäre Cuba Hilfe in Germany, Fundación para la Diabetes in Spain, and the World Diabetes Foundation.

## DIABETES EDUCATION AND CLINICAL PRACTICE GUIDELINES IN SUB-SAHARAN AFRICA

Diabetes used to be viewed as a rare disease in Africa. In the last 30 to 40 years this situation has changed.



Diabetes is now regarded as a major health problem and a challenge across the continent. The number of patients is rapidly growing, and as life expectancy rises, long-term complications of diabetes are increasingly appearing.

Increased diabetes prevalence means an increased demand for appropriate diabetes care. Delivering appropriate diabetes care in sub-Saharan Africa is hampered by a number of factors, including socio-economic, cultural and geographical considerations.

The lack of knowledge of diabetes care among healthcare providers is another major constraint. The development of standard clinical practice guidelines and a diabetes education manual for use by doctors, nurses and diabetes educators in sub-Saharan Africa is seen as a major step towards meeting the increasing demand for better diabetes care.

The two sets of guidelines will be finalised during the summer of 2004, and then distributed and implemented throughout the region.

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At least 50% of all people with diabetes are unaware of their condition. In some countries this figure may be as high as 80%

## CODE OF CONDUCT



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There is conclusive evidence that well-controlled blood glucose levels can substantially reduce the risk of developing complications and slow their progression in all types of diabetes. The management of high blood pressure and raised blood lipids (fats) is equally important. Better control of these parameters would contribute to a substantial improvement in quality of life in all societies

1. The aim is to alleviate human suffering related to diabetes and its complications among those least able to withstand the burden of disease
2. Support is given regardless of race, gender or creed of the recipients in the developing world and upon assessment of needs and capabilities to meet these needs
3. Support will not be used to further a particular economic, political or religious purpose
4. We shall endeavour to respect the culture, social structures and values of the communities and countries we are working in
5. We will strengthen local capacities and cooperate with governments, private institutions and voluntary associations
6. Support shall never be imposed upon the beneficiaries. Ways shall be found to create true partnerships and involve beneficiaries in the formulation, planning and managing of projects
7. We will strive to reduce the beneficiaries' vulnerability by promoting sustainable solutions, while also meeting basic needs
8. We will be accountable to both those we seek to assist and those from whom we accept resources
9. We shall be open and transparent, and report on the impact of our work and the factors limiting or enhancing that impact
10. In all our activities and communications, we shall recognise people with diabetes and related diseases as dignified humans, not as hopeless victims

## OBESITY

Obesity is a major risk factor for type 2 diabetes. Reducing obesity through healthy nutrition and exercise helps to prevent diabetes and associated diseases.



Once diabetes has been diagnosed, nutrition is also a major component in the management and control of the disease.

Throughout the last 10 to 15 years various institutions in the Caribbean have developed protocols for the clinical management of diabetes. However, the nutritional component has been lacking in these protocols. The Caribbean Food and Nutrition Institute (CFNI) has taken the initiative to develop a protocol for the nutritional management of diabetes and obesity.

The incidence of diabetes in Palestine is relatively high, between 7% and 10% of the population. Recent studies also indicate that obesity is a severe problem, with up to 40% of women and 20% of men in the 30-55 age group being obese. These people are at high risk of developing diabetes.

This project seeks to address the problem by incorporating nutrition counselling and behaviour change into the medical treatment of people with diabetes and high-risk groups.

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The prevalence of diabetes is higher in developed than in developing countries, but the developing world will be hit hardest by the escalating diabetes epidemic in the future. Increased urbanisation, westernisation and economic development in developing countries have already contributed to a substantial rise in diabetes. This is likely to continue and will factor significantly in the forthcoming diabetes pandemic

## OUR MISSION



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A person with diabetes incurs medical costs two to five times higher than those of a person without diabetes. This is due to more frequent medical visits, purchase of supplies and medication, and the higher likelihood of being admitted to hospital

- We create partnerships to assist people with diabetes and those at risk, acting as a catalyst to help others do more
- We link people and resources to educate and advocate globally, and provide care locally
- Our priority is to support the poorest of the poor
- Our focus is on innovative strategies to prevent diabetes and its consequences
- We aim to empower local communities to achieve sustainable solutions and yield replicable models

## PROJECTS SUPPORTED

At present the World Diabetes Foundation supports 22 projects in developing countries.



The total project portfolio amounts to USD 20 million, of which USD 9.6 million has been donated by the World Diabetes Foundation. The remainder constitutes contributions from partners.

Out of the 22 projects, three have a global perspective and 19 focus on geographical regions or specific countries.

Read more about projects funded by the World Diabetes Foundation at:  
[www.worlddiabetesfoundation.org](http://www.worlddiabetesfoundation.org)



Diabetic retinopathy is a leading cause of blindness and visual disability. Research findings suggest that, after 15 years of diabetes, approximately 2% of people become blind, while 10% develop a severe visual handicap

## IMPACT

The present World Diabetes Foundation project portfolio will have an estimated direct impact on 18 million people in developing countries.



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The devastating complications of diabetes, such as blindness, kidney failure and heart disease, are placing a huge burden on healthcare services. It is estimated that diabetes accounts for between 5% and 10% of a nation's health budget

These are people directly exposed to training, improved care and increased awareness of diabetes and its prevention. Around 50 million people will potentially be affected indirectly by the project activities, through media campaigns, word of mouth and distribution of publications.

## FUNDRAISING

In 2003, Novo Nordisk employees around the world donated the generous sum of DKK 1,000,000 to fight diabetes in developing countries through the World Diabetes Foundation.



These funds have made it possible to establish 11 clinics in Tanzania, which are treating around 66,000 people with diabetes. We are also supporting two diabetes clinics in Vietnam and two foot care centres in India. This is an extraordinary achievement that will enable thousands of people with diabetes to receive better treatment.

Furthermore, every month around 200 employees make payments through their wage slip to support children with diabetes in Bangladesh or the Rosales Diabetes Hospital in El Salvador.

Fundraising has been on the agenda at Novo Nordisk events all over the world during the past year. In some places, money has been raised to provide better foot care in India.

The World Diabetes Foundation hopes to be able to establish foot care clinics – tentatively planned for big cities with large populations of poor patients, such as Calcutta.



An estimated 25% of the world's nations have not made any specific provision for diabetes care in national health plans

## ANNUAL ACCOUNTS 2003

<b>Profit and loss account, 1 January - 31 December 2003</b>		<b>Balance sheet as at 31 december 2003</b>	
	DKK 1,000		DKK 1,000
Donations from Novo Nordisk and others	41,065	<b>Assets</b>	
Administration expenses	4,426	Locked-up capital	260
Project expenses	-2,587	<b>Fixed assets</b>	<b>260</b>
Other expenses	-648	Receivable donations from Novo Nordisk A/S	11,804
<b>Profit before financials and tax</b>	<b>33,404</b>	Interest receivable	2,573
Financial income	2,806	Other receivables	2
Financial costs	-500	<b>Total receivables</b>	<b>14,379</b>
<b>Profit before tax</b>	<b>35,710</b>	Securities	64,719
<b>Net profit for the year</b>	<b>35,710</b>	Cash	14,939
		<b>Current assets</b>	<b>94,037</b>
<b>Proposed appropriation of net profit for the year</b>		<b>Total assets</b>	<b>94,297</b>
Donations from the World Diabetes Foundation	19,317	<b>Equity and liabilities</b>	
At disposal for future donations	16,393	Locked-up capital	260
	<b>35,710</b>	Retained earnings for the year	42,287
		<b>Total equity</b>	<b>42,547</b>
		Payable donations	50,135
		Other provisions	83
		Payables to Novo Nordisk A/S	1,532
		Other short-term payables	0
		<b>Total short-term liabilities</b>	<b>51,750</b>
		<b>Total equity and liabilities</b>	<b>94,297</b>

For full details of the annual accounts, please refer to our website:  
[www.worlddiabetesfoundation.org](http://www.worlddiabetesfoundation.org)

## THE WEAKENING OF THE DOLLAR

Throughout 2003 we have carefully managed our costs without losing focus on our overall goals. It is important for WDF to maintain low administration costs. WDF's administration cost base is in DKK as we are located in Denmark, while our donation base is primarily in USD. The weakening of the dollar in 2003 from DKK 8.50 (January 2003) to DKK 6.00 (December 2003) to the dollar means that our project portfolio in DKK value was reduced significantly.

**WORLD DIABETES FOUNDATION**

**Annual Review 2003**

Edited by the World Diabetes Foundation Secretariat

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The World Diabetes Foundation  
is dedicated to supporting  
prevention and treatment of diabetes  
in the developing countries.

The World Diabetes Foundation  
creates partnerships and acts as a  
catalyst to help others do more.

The World Diabetes Foundation  
strives to educate and advocate  
globally in an effort to create  
awareness, care and relief for those  
impacted by diabetes.



WORLD **DIABETES** FOUNDATION