

WORLD **DIABETES** FOUNDATION

2002 ANNUAL REVIEW

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Samanta García Pantoja
from Mexico
has type 1 diabetes





Her Royal Highness Princess Benedikte of Denmark
Patron of the World Diabetes Foundation

DIABETES – A CAUSE WORTH SUPPORTING

I feel strongly that diabetes care is a cause very much worth supporting, and therefore I have personally been attached to the cause of diabetes for several years.

Like many other people, I was personally concerned when I first heard of the disturbing predictions for the prevalence of diabetes reaching epidemic proportions all over the world. This fact becomes even more alarming when – according to WHO predictions – approximately 80% of all new cases of diabetes are expected to appear in the developing countries. Here, less than half of the people with diabetes are ever diagnosed, and even if they are, timely and adequate diabetes care is unfortunately very rare indeed in that part of the world.

It may seem strange that the developing world, which is often associated with hunger and inadequate nutrition for children and adults, is now experiencing an epidemic of type 2 diabetes, a disease normally related to wealth and an unhealthy lifestyle. But this can be explained by the high degree of urbanisation in some countries like India, which have made the population adapt quickly to the lifestyle of the more developed countries. It is also a fact that some people genetically have a higher risk of developing diabetes and combined with great

changes in lifestyle this risk has turned into reality for many people in those countries.

In some developing countries, the prevailing poverty, ignorance, illiteracy and poor health consciousness further adds to the problem. Those who cannot afford or do not have access to even the most basic health care facilities are likely to be diagnosed late or never and subsequently suffer more than necessary from diabetes related complications.

Without effective prevention and control programmes, the incidence of diabetes is likely to continue its dramatic rise on a global scale. This is why the World Diabetes Foundation has set sail in order to curb the diabetes epidemic in the developing countries.

Therefore, I was happy to accept the patronage of the World Diabetes Foundation. A patronage that comes in line with my other diabetes related activities such as my patronage of the Juvenile Diabetes Research Foundation.

Becoming a patron of the World Diabetes Foundation gives me the chance to play a part in the on-going fight against the diabetes epidemic in the least developed parts of the world. I am pleased to dedicate my time to diabetes.

**Her Royal Highness Princess
Benedikte of Denmark**



THE WORLD DIABETES FOUNDATION ANNUAL REVIEW 2002

Diabetes is slowly but surely assuming epidemic dimensions. More than 170 million people around the globe already have diabetes – and the number of new patients is increasing dramatically. It is estimated that there will be up to 100 million new cases over the next decade. And what is even worse: as many as 80% of the new cases are expected to arise in the developing world, where the capacity to handle the disease is often at a minimum.

Against this background, it is correct to liken diabetes to epidemic disease such as HIV/AIDS, malaria and tuberculosis - all serious diseases that have threatened, and still threaten major parts of the developing world. This grave reality is the reason why the World Diabetes Foundation was established in the autumn of 2001 with the general objective of opening a window of hope in the developing countries by contributing to the prevention of diabetes and its life-threatening complications.

We are fully aware that the World Diabetes Foundation alone cannot halt the rapid spread of diabetes, and we also realise that we do not possess the means needed to support all the good projects that are brought to our attention. But we are determined to make a difference, and it is our belief that we can achieve the most by supporting projects in which we take part as catalysts rather than by establishing our own projects.

Ever since its establishment the World Diabetes Foundation has been determined to make its resources go as far as possible. This is done through a deliberate strategy of partnering with local and international relief organisations, authorities, individuals and private companies. At the overall level, partnerships have been formed with the World Health Organisation, the International Diabetes Federation and DANIDA, the Danish Foreign Ministry's International Development Assistance.

We establish partnerships to help people with diabetes and those who are in danger of developing the disease. We support existing local activities, maybe adding new elements, but our main priority is that the projects can continue after the backing from the World Diabetes Foundation has ended.

After only a year in existence, the World Diabetes Foundation is proud to note that we have got off the mark successfully with many promising projects in countries such as Tanzania, India, China, Mozambique, Cameroon and the occupied Palestinian territory. Although each project is unique, they all have a common goal: to develop and improve local diabetes treatment. Another similarity is that local organisations back all the projects. It is only by making sure that the projects have local ownership that we can guarantee their long-term value.

In the years ahead, the World Diabetes Foundation will persistently continue to direct global attention to diabetes. The disease is a serious and growing health problem in the world, and in many places it is treated inadequately – or is not treated at all.



Professor Sir George Alberti,
Chairman of the
World Diabetes Foundation

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Damaris Wanjiku Murigi
from Kenya
has type 2 diabetes

George Alberti
Professor Sir George Alberti



Lars Rebien Sørensen,
CEO of Novo Nordisk and
member of the board of the
World Diabetes Foundation

“WE CREATED THE WORLD DIABETES FOUNDATION OUT OF ENLIGHTENED SELF-INTEREST”

Many might expect that one of Denmark’s largest companies and its CEO in their action solely would be severe, self-centred and strictly business-like. Well, in the case of Novo Nordisk and Lars Rebien Sørensen, think again.

Lars Rebien Sørensen is not the typical corporate Chief Executive Officer. Not only is he a bit younger than the majority of his colleagues on the top rung of the executive ladder, but he has also managed to stand tall as a symbol of Novo Nordisk’s dedication to maintaining and sustaining its company profile as a socially responsible and caring company alongside its strong commitment to meet their investors’ rightful expectations.

It is important to note, that the World Diabetes Foundation is an independent foundation with its own management and board. However, Novo Nordisk plays a major role as a promoter and founder of the World Diabetes Foundation. As the man behind the idea and as a board member of the World Diabetes Foundation, Lars Rebien Sørensen personifies Novo Nordisk’s involvement in the diabetes cause – and when asked the following five key questions about the World Diabetes Foundation, the normal sparkle in Lars Rebien Sørensen’s eyes expands to a large twinkle...

What are the overall thoughts behind the idea of the World Diabetes Foundation seen from Novo Nordisk’s point of view?

“Novo Nordisk’s decision to create the World Diabetes Foundation is to be seen as a reaction to the current global attention to the health care situation in developing countries and especially the continuous focus on the responsibilities of global pharmaceutical companies. We also acknowledge the fact that the way international pharmaceutical companies normally conduct business is not necessarily beneficial for all the people in the developing world in terms of meeting their needs for access to fundamental health care services.”

Why did you choose diabetes as the content base of the foundation?

“Charity starts at home, so to speak. And Novo Nordisk’s strongest home base is diabetes care. So if we want to help the developing world, it is quite

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Michaela Cruz
from Argentina
has type 1 diabetes



natural for us to focus on diabetes. Especially since we see a dramatic rise in the number of people with diabetes in these countries. At the same time we acknowledge the fact that our vast experience within diabetes care carries a moral obligation to do something out of the ordinary in this field. In addition to this, we had to look at this investment in a business perspective, seeing some sort of return on the investment – however long-term it might be in this case. The philosophy behind this is that in the long run Novo Nordisk hopes to achieve new business opportunities in the developing world just as much we see indirect benefits of increased goodwill in the existing markets.”

So it is not just a philanthropic project?

“Of course the philanthropic idea is the mainstay behind the grant, but we are not making any secret of the fact that the World Diabetes Foundation initiative has to be seen in a business development context as well. This way, Novo Nordisk’s decision to grant DKK 500 million over 10 years to support the work of the World Diabetes Foundation was a decision made in line with both Novo Nordisk’s overall strategies our focus on social responsibility and our commitment to generate return on investments and profits. Therefore, I call our World Diabetes Foundation investment enlightened self-interest. Furthermore, you cannot underestimate the internal value of the investment. Novo Nordisk employees will be able to identify with and take pride in the fact that Novo Nordisk is so far one of the few companies of its kind to launch an initiative like the World Diabetes Foundation. This will lift the company spirit and motivation and make Novo Nordisk an even more attractive place to work for future potential employees.”

How was your World Diabetes Foundation idea initially received among Novo Nordisk shareholders?

“I was personally very pleased indeed with the support that the World Diabetes Foundation initiative received among Novo Nordisk

shareholders. The proposal was supported wholeheartedly at our General Assembly last year. The shareholders could easily appreciate the thinking behind the project, enhancing Novo Nordisk’s company image and reputation and on a very long-term basis enabling Novo Nordisk to establish and secure a strong position in emerging diabetes care markets in the developing world.”

Do you see Novo Nordisk as a role model for other pharmaceutical companies through your World Diabetes Foundation initiative?

“Yes, I would like to think so. It is important that Novo Nordisk takes the lead in this new way of helping out. I like to think that even though we cannot solve the problem completely, Novo Nordisk can make a difference and lead the way for other initiatives of the same sort. I urge my colleagues in other international pharmaceutical companies to think of ways in which they can help within their fields. Having said that, I think it is important that Novo Nordisk remains the only pharmaceutical company represented on the board of the World Diabetes Foundation in order to avoid company politics interfering with the work, as I have seen it happen in other cases. However, it is my hope that we can attract other non-pharmaceutical companies to join forces with the World Diabetes Foundation if they have a speciality that might help the foundation’s work. I am not just thinking within diabetes care, but partners in logistics, construction and many other relevant areas could also be helpful.”

When asked about his personal commitment and interest in the World Diabetes Foundation Lars Rebien Sørensen is somewhat reluctant to overplay his own role. “Of course, I am very close to the project as its initiator, and I will monitor the progress of the World Diabetes Foundation closely as a board member and as a representative of the company that pays the bill,” says Lars Rebien Sørensen – but in a tone of voice and with an expression that clearly shows that launching the World Diabetes Foundation is a business investment that comes straight from the heart...

Primary prevention of diabetes identifies and protects susceptible individuals from developing diabetes. It therefore has an impact by reducing both the need for diabetes care and the need to treat diabetic complications.

While there is yet no conclusive evidence to suggest that type 1 diabetes can be prevented, primary prevention of type 2 diabetes is potentially possible.

Lifestyle changes aimed at weight control and increased physical activity are important objectives in the prevention of type 2 diabetes. The benefits of reducing body weight and increasing physical activity are not confined to type 2 diabetes; they also play a role in reducing heart disease and high blood pressure.

SETTING DIABETES ON THE GLOBAL AGENDA

In its first year the World Diabetes Foundation has supported 12 important diabetes projects around the world thus proving its worth as a significant player in diabetes treatment in the developing countries.

Since Novo Nordisk laid the foundation for the World Diabetes Foundation on 14 November, 2001, the Foundation and its partners have initiated 12 diabetes projects in several of the countries that are hit the hardest by the disease.

The first year

Leif Fenger Jensen is also satisfied that the World Diabetes Foundation succeeded in generating a long list of partners. On average, the projects received approximately one dollar from another party every time the World Diabetes Foundation donated one dollar. “The projects that our Board of Directors has approved are worth a total of DKK 82 million (approximately US\$ 12 million), but only a little more than half of the amount comes from us. The other half comes from the partners with whom we co-operate from project to project,” he says. Leif Fenger Jensen is also pleased that the World Diabetes Foundation reports some very low administration costs. At 5%, they are substantially lower than the general level for relief organisations.

Leif Fenger Jensen was appointed Managing Director of the World Diabetes Foundation from its inception. He was chosen for his long experience in the pharmaceutical sector and as Country Manager for Novo Nordisk in the Asian Pacific region. In this capacity, he developed profound knowledge of some of the world’s poorest countries, including their health care systems and business procedures.

The prime task of Leif Fenger Jensen is to make sure that the supported projects live up to the strict requirements set by the World Diabetes Foundation. “So far we have received 45 applications. Of these more than 80 per cent have been of a high quality and have largely met our requirements. The percentage is way above our expectations, particularly in the light of the rather harsh criteria we set up. This, however, also means that we are already facing the dilemma that we must reject many good projects,” he says.

12 projects founded

The 45 applications that the Foundation received in the past year were first analysed by the secretariat. Then the qualified applications were passed on to the Board. The common denominator of the accepted 12 projects is that they focus on access to diabetes care in the developing countries and on increasing the knowledge of diabetes among physicians, nurses and the population. In addition to this all projects have a strong local anchorage.

“Our next challenge is to retain the interest in the Foundation’s activities and oversee that the projects are as successful as we expect them to be,” says Leif Fenger Jensen. “We will do that by following up on the projects and making sure that the projects comply with the established milestones that are a compulsory part of all contracts. In addition, we are constantly looking out for new partners to initiate new projects,” Leif Fenger Jensen concludes.



Leif Fenger Jensen, Managing Director of the World Diabetes Foundation

Secondary prevention of diabetes involves the early detection and prevention of complications. It therefore reduces the need for treating complications. Action taken early in the course of diabetes is more beneficial in terms of quality of life and is more cost-effective, especially if this action can prevent hospital admission. There is now conclusive evidence that good control of 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



FIGHT AGAINST IGNORANCE

Lack of knowledge is the greatest enemy in the fight against diabetes in the developing countries, according to Dr. Anil Kapur, an Indian diabetes specialist. Ignorance leads to the erroneous treatment of, for instance, infants who die without being correctly diagnosed. It leads to people with diabetes hiding their disease because it minimises their chances of getting married. For these reasons, the World Diabetes Foundation's work in the developing countries is so incredibly urgent.

"The greatest enemy to improving conditions for people with diabetes in the developing countries is ignorance and prejudice", says Dr. Anil Kapur, Vice Chairman of the Board of the World Diabetes Foundation and a leading Indian diabetes specialist.

"People do not know what diabetes is. And those who do know believe it is something you should keep to yourself. I am familiar with several examples of people in India who conceal their diabetes because it reduces their chances of marriage," he says.

Dr. Kapur has seen the weaknesses of diabetes treatment in the developing countries with his own eyes. On his first day as a doctor, he attended a young man who had been brought to the emergency ward floating in and out of consciousness. Blood and urine tests revealed that the patient lacked sugar, and Dr. Kapur prescribed a large glucose supplement. This, however, only led to deterioration of the young man's condition. It turned out that the patient had diabetes and was in need of insulin and not the glucose that nearly killed him.

Such a story seems strange to physicians in the industrialised world, but in the developing countries, it is unfortunately not uncommon. In these countries, diabetes plays a negligible role in the awareness of politicians, physicians and patients due to the facts of the many other serious problems that also require their attention.

Therefore, Dr. Kapur sees the training of as many physicians as possible as one of the World Diabetes Foundation's most important missions.

"I see the World Diabetes Foundation's mission as creating ripples in the pond. If, in five years, we have trained thousands of physicians all over the world who see five diabetes patients each every day, and these patients convey their knowledge to their relatives, then something is starting to happen."

He acknowledges however, that many developing countries will not allocate resources to diabetes treatment since they have an extremely high infant mortality due to a shortage of midwives, clean drinking water and vaccines and at the same time battle with major, deadly diseases such as tuberculosis, HIV/AIDS and malaria. "On the other hand, it does not require as many resources to clearly improve the life of a person with diabetes as it does to resolve many of the other major problems," Dr. Kapur says.

"This is one of the reasons why I am so excited about having joined the World Diabetes Foundation. In this way I can help more people with diabetes through long-term efforts than I was able to before," he says.

Two lectures in diabetes

As indicated in the story about the young man with diabetes, Dr. Kapur's status as one of India's



Dr. Anil Kapur,
Managing Director of Novo
Nordisk India Private Ltd.
Vice Chairman of the
World Diabetes Foundation

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Shanthala Shamarao
from India
has type 1 diabetes



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

leading diabetes experts was not founded during his years at medical school. At university, the students only had a couple of lectures on diabetes. This illustrates another major problem in the developing countries: the shortage of physicians with sufficient knowledge about diabetes. One of the consequences is that many infants die from diabetes without having been diagnosed and without the parents knowing that their child had diabetes.

"Children with diabetes often display symptoms such as vomiting and a slightly acrid smell. These symptoms can easily be mistaken for another serious condition, dehydration, and that makes some doctors prescribe glucose to add energy – instead of the insulin the infants really need. In this way, the doctors may inadvertently kill them because they often die of an excessive glucose level," Dr. Kapur says.

Dr. Kapur is aware that some people find it difficult to understand that diabetes, which is seen as a lifestyle disease associated with too much

food and too little exercise, can be a problem in the developing world that has fought against malnutrition and starvation for decades.

The fear of starvation

"The fear of starving is so deeply rooted in people – even in many who have had enough to eat for generations – that they would rather eat too much than too little. In the western world, sensible dietary habits have gradually become part of the culture. But it will take many contented generations for the developing countries to reach that stage. However, we must try to speed up this process," he says.

Here and now Dr. Kapur's greatest hope is that the World Diabetes Foundation will contribute to placing diabetes on the global political agenda. He is also hopeful that the World Diabetes Foundation will succeed in becoming the originator of useful projects that will change the lives of people with diabetes and put an end to the general ignorance of diabetes in the developing countries.



Diabetic foot disease, due to changes in blood vessels and nerves, often leads to ulceration and subsequent limb amputation. Diabetes is the most common cause of non-traumatic amputation of the lower limb, which may be prevented by regular inspection and good care of the foot.

// Foot care is a diabetes project that really gives great results – both for the individual and for society. Once the patients have learned to care for their feet at home, they can keep them

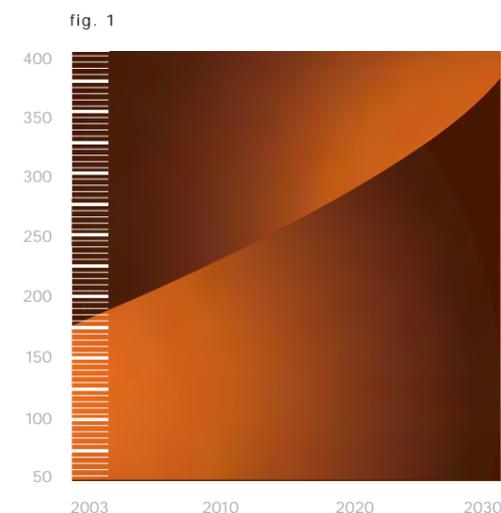
- Dr. Anil Kapur

DIABETES – A WORLDWIDE EPIDEMIC

Over the past few decades, the global burden of diabetes has grown to such a level that the disease is now considered a pandemic. According to the World Health Organisation (WHO), around 177 million people worldwide suffer from diabetes, and two-thirds of them live in the developing world.

Today there are more than 30 million people with diabetes in India, and more than 20 million in China. The Middle Eastern region has over 25 million people with diabetes, Africa 12 million, and there are over 13 million in Latin America and the Caribbean.

By the year 2030 the number of people with diabetes is expected to more than double to 370 million. This increase is estimated to be particularly high in developing countries, where the diabetes epidemic is yet to reach its peak, if successful preventive measures are not introduced. The increase will be most significant in China and the Middle East, where the number is expected to increase by at least 150%.



A result of cultural change

The diabetes pandemic in the developing countries, primarily involving type 2 diabetes, is the result of cultural changes, ageing and growing populations, dietary changes and declining physical activity. Growing urbanisation, forcing people to adapt to the lifestyle of the industrialised world, is the main reason why the disease so seriously affects the developing countries. Furthermore, genetic differences may play a part of the reason for

the speed in which diabetes is spreading in specific populations.

Only one third is diagnosed

Even in developed countries, between one-half and one-third of persons with diabetes are unaware of their condition. In many developing countries two-thirds of those suffering from diabetes are not diagnosed. Due to poverty, ignorance, prejudice and deficient health awareness, a majority of people with diabetes in the developing countries have their disease diagnosed at such a late stage that they have already developed diabetes-related complications such as gangrene, blindness, heart disease and kidney failure.

Furthermore, diabetes is a major financial burden on the individual family hit by diabetes and to the economics in the developing countries. According to WHO, 80% of the population in the developing countries pay most or all of their medicine consumption themselves. WHO calculations show for example that a low-income Indian family, in which one adult has diabetes, spends close to one quarter of the total family income on basic diabetes treatment.

The diabetes bomb

Exploding costs in relation to treatment of diabetes combined with the loss of workforce due to diabetes could constitute a bomb under the economy of the developing world. The WHO estimates that non-infectious chronic diseases such as diabetes will be the most destructive and fatal diseases in the next 25 years.

Written in collaboration with Dr. Gojka Roglic - Technical officer, Department of noncommunicable disease management, WHO.

Fig. 1 There are currently more than 177 million people with diabetes worldwide. WHO figures estimate that this will rise to 370 million by 2030.

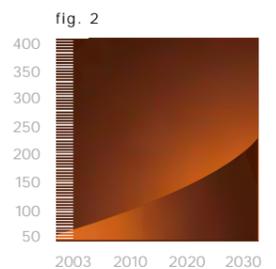


Fig. 2 For developing countries, there will be a projected increase of a 170%.



WHY SOUTH ASIAN PEOPLE HAVE A GREATER RISK OF GETTING DIABETES

There are two primary reasons why diabetes is spreading rapidly among the developing countries in South Asia. One is the population's quick adaptation of urban life styles – another is genetic predisposition.

The prevalence of type 2 diabetes is increasing on a global level – and most significantly in the developing countries in South Asia. By the year 2025, the developed countries will have experienced an increase of 42% in the prevalence of diabetics compared to the number today. In the developing countries the increase in the same period is estimated to be 170%.

Explanation in the genes

But why is diabetes apparently exploding in the developing countries? Well, part of the explanation is clearly that the population of these countries has quickly adapted to western-like, urban lifestyles, but another reason might be in the genes.

Along with the well-documented risk of the urban lifestyle such as unhealthy eating habits and lack of exercise, one of the major risk factors for developing type 2 diabetes is genetic predisposition.

This genetic factor is especially evident in the countries in South Asia such as India and Pakistan, where statistics indicate a greater risk of developing diabetes compared to other ethnic groups in the world.

Thus studies in Singapore have shown that the prevalence of type 2 diabetes – though growing in all ethnic groups in the country – is increasing most significantly in the Indian community. In the rural areas in Asia, the prevalence of type 2 diabetes is generally lower than in the urban areas. However, the number of people with impaired glucose tolerance (IGT), which can be seen as a pre-stage of developing diabetes, is high (7-8%) even in the rural population.

This might indicate the presence of a genetic predisposition to type 2 diabetes in this population.

Diabetes increases throughout the years

In India, for example, the prevalence of type 2 diabetes is already high – and it is increasing among the urban population. Epidemiological studies by the Diabetes Research Centre in the Indian city of Chennai have shown that the percentage of the adult urban population affected by diabetes has increased throughout the years: 5.2% in 1984, 8.2% in 1989, 11.6% in 1995 and 13.9% in 2000. It is calculated that the present number of adult people with diabetes in India is approximately 33 million.

A similar situation can be found in Pakistan, where 16.2% of the male population and 11.7% of the female population have diabetes while 9% have IGT.

Urbanization leads to diabetes

Studies in Chennai have also shown that urbanization leads to changes in lifestyle, for example changes in dietary habits, physical activity and stress phenomenon. These factors contribute to release diabetes in individuals with genetic predisposition for the disease. Luckily, positive lifestyle modifications such as healthier eating and exercise habits have been shown to improve glucose tolerance thereby preventing or delaying the onset of diabetes also in genetically prone individuals.

Prof. A. Ramachandran

Diabetes Research Centre, M.V. Hospital for Diabetes, WHO Collaborating Centre for Research, Education and Training in Diabetes, Chennai, India.

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Niranjan Sarawgi
from India
has type 2 diabetes



A healthy person's blood sugar is usually between 70 and 110 mg/dL (milligrams of glucose in 100 millilitres of blood) or, in millimols, between 3.9 and 6.0 mmol/L. Impaired glucose tolerance is a level of blood glucose which is higher than normal, but not high enough to be in the range where doctors classify this as diabetes.

THE WORLD DIABETES FOUNDATION -
PROJECTS 2002



GLOBAL PROJECTS

1 DANIDA AGREEMENT
In India, Uganda, Ghana, Kenya, Tanzania or Bhutan
Partner DANIDA, the Danish Foreign Ministry's International Development Assistance, Denmark
Time Q4 2003

2 DIABETES ATLAS
Partner The International Diabetes Federation, HQ Brussels
Time Q1 2002 - Q3 2004

3 GLOBAL AWARENESS, ADVOCACY AND ACTION IN DIABETES
Partner The World Health Organisation, Geneva, and the International Diabetes Federation, Brussels
Time Q1 2003 - Q4 2005

REGIONAL PROJECTS

4 IDF/WDF FELLOWSHIP
Region Far East, the Indian Sub-continent, Latin America and Africa
Partner The International Diabetes Federation
Time A six-month scholarship

5 IDF AFRICA CLINICAL PRACTICE GUIDELINES
Region Africa south of the Sahara
Partner The International Diabetes Federation, Africa
Time Q1 2003 - Q2 2004

6 IDF AFRICA REGION TASK FORCE ON DIABETES EDUCATION
Region Africa south of the Sahara
Partner The International Diabetes Federation, Africa
Time Q4 2002 - Q2 2004

LOCAL PROJECTS

7 ADDRESSING THE PANDEMIC OF DIABETES
Country Cameroon
Partner Health of Population in Transition Research Group in Cameroon
Time Q1 2003 - Q1 2006

8 NATIONAL DIABETES MANAGEMENT PROJECT
Country China
Partner The Chinese Health Ministry
Time Q1 2003 - Q4 2007

9 RETINOPATHY MANAGEMENT PROJECT
Country India
Partner Aravind Eye Hospital
Time Q1 2003 - Q4 2007

10 IMPROVE INSULIN AVAILABILITY AND KNOWLEDGE FOR PATIENTS WITH TYPE 1 DIABETES
Country Mozambique
Partner The International Insulin Foundation
Time 12-months pilot project

11 INCORPORATING DIABETES PREVENTION AND NUTRITION COUNSELLING
Country The occupied Palestinian territory
Partner DanChurch Aid/Augusta Victoria Hospital
Time Q1 2003 - Q4 2005

12 IMPROVE ACCESS TO DIABETES CARE
Country Tanzania
Partner The Tanzania Diabetes Association
Time Q1 2003 - Q1 2004

Cardiovascular disease is the number one cause of death in industrialized countries. It is also set to overtake infectious diseases as the most common cause of death in many parts of the less developed world.

People with diabetes are two to four times more likely to develop cardiovascular disease than people without diabetes.

People with type 2 diabetes have the same risk of heart attack as people without diabetes who have already had one heart attack.

Strokes occur twice as often in people with diabetes and high blood pressure as in those with high blood pressure alone.

For each risk factor present, the risk of cardiovascular death is about three times greater in people with diabetes as compared to people without the condition.

Cardiovascular mortality has declined for those without diabetes in developed countries. For women with diabetes the rates have increased by 23%.

PROJECTS FUNDED BY THE WORLD DIABETES FOUNDATION

WORLDWIDE PROJECTS

1 DANIDA AGREEMENT*

2 DIABETES ATLAS

The Diabetes Atlas - the World Diabetes Foundation will be supporting the second edition - is a compendium of information, facts and figures divided on a national and regional basis. On the basis of the Atlas, the partners want to communicate information about the scope of the disease and direct attention to the urgent initiatives that governments and international health organisations ought to implement.

3 GLOBAL AWARENESS ADVOCACY AND ACTION IN DIABETES*

REGIONAL PROJECTS

4 IDF/WDF FELLOWSHIP*

5 IDF AFRICA CLINICAL PRACTICE GUIDELINES

International Diabetes Federation, Africa will set up a task force that will focus on standardising and implementing clinical practise guidelines for diabetes care in Africa. The aim is to provide better treatment opportunities for the three million Africans with diabetes in Sub-Saharan Africa.

6 IDF AFRICA REGION TASK FORCE ON DIABETES EDUCATION

International Diabetes Federation, Africa will set up a task force that will focus on improving the knowledge of diabetes among doctors and nurses. A diabetes education programme for doctors and patients will be established to improve the quality of information available to both doctors and people with diabetes to improve the general standard of care of the three million people with diabetes in Sub-Saharan Africa.

LOCAL PROJECTS

7 ADDRESSING THE PANDEMIC OF DIABETES

The Health of Population in Transition Research Group in Cameroon is aiming at establishing a national diabetes programme and a programme for the treatment of

cardiovascular disease. The aim is to provide new knowledge to underpin and guide the development of national and regional policies for the surveillance, control and prevention of diabetes in Africa.

8 NATIONAL DIABETES MANAGEMENT PROJECT**

9 RETINOPATHY MANAGEMENT PROJECT

In India the World Diabetes Foundation is funding Aravind Eye Hospital, one of the world's leading institutes in eye care. The project aims at screening people with diabetes for diabetic retinopathy and provide better treatment as well as creating general awareness of diabetes. In addition to treatment for diabetic retinopathy the project will also offer referral service to patients for treatment of diabetes, retinopathy. The project "Retinopathy Management" will apply telemedicine technology in three districts in Tamilnadu, India.

10 IMPROVE INSULIN AVAILABILITY AND KNOWLEDGE FOR TYPE 1 PATIENTS

The International Insulin Foundation will improve insulin availability and knowledge for patients with type 1 diabetes in Mozambique by establishing effective management of patients and by working with relevant stakeholders to improve the delivery of insulin. The project is estimated to last for approximately 12 months.

11 INCORPORATING DIABETES PREVENTION AND NUTRITION COUNSELLING

DanChurch Aid is collaborating with August Victoria Hospital to establish a referral centre and diabetes programme for patients with diabetes, high-risk groups and the general public at the Augusta Victoria Hospital in the West Bank, occupied Palestinian territory. The aim is to carry out training and awareness campaigns for physicians, nurses and patients.

12 IMPROVE ACCESS TO DIABETES CARE ***

* Refer to page 21
 ** Refer to page 27
 *** Refer to page 23

INVITING PARTNERSHIPS

The efforts of the World Diabetes Foundation are extensively focused on creating a synergic effect through collaboration with organisations, companies, NGOs and others who already have a developed infrastructure and are working to improve public health in the developing countries. By assuming the role as catalyst and seeking co-operation with various, relevant partners, the Foundation can help generate better results in the areas where the need is greatest. The Foundation's partners usually also have major, valuable knowledge of local conditions.

The partnership projects, which the World Diabetes Foundation either takes part in actively or supports financially, include:

DANIDA/WDF

In connection with the UN Summit in Johannesburg, South Africa 2001 partnerships between public authorities and private enterprises were recommended as one of the methods of promoting global sustainable development. The World Diabetes Foundation entered a partnership with DANIDA, the Danish Foreign Ministry's International Development Assistance. DANIDA has extensive know-how in developing health care capacity for poor population groups and the Foundation will be able to benefit from this.

The objective of the partnership is to combat diabetes in the developing countries, and the agreement involves the joint formulation of projects. The partnership is expected in 2003 to lead to the identification of two projects in either: India, Uganda, Ghana, Kenya, Tanzania or Bhutan. The projects will be chosen by the Foundation who will also head negotiations with local partners, authorities, NGOs, research institutions and companies. DANIDA is primarily to identify co-operation countries and programmes.

IDF/WDF Fellowships

Collaborating with the International Diabetes Federation, the World Diabetes Foundation has initiated a number of IDF/WDF Fellowships. The objective of the initiative is, in the period 2002-2005, to offer junior physicians scholarships of up to six months at a recognised diabetes centre within

four regions: Western Pacific, Southeast Asia, Latin America and Africa.

WHO/IDF/WDF

The World Diabetes Foundation supports a collaboration project between the World Health Organisation (WHO) and the International Diabetes Federation (IDF) entitled Global Awareness, Advocacy and Action in Diabetes.

From 2003-2005, this project will constitute the major part of WHO's diabetes programme.

The objectives in these programmes are to:

- increase awareness about diabetes and its consequences in the general public, among people with diabetes, their families, health workers and decision makers.
- assist regions as well as countries in reorganising their health care service through the development of co-ordinated programmes for the prevention of type 2 diabetes and improved treatment.
- strengthen the information on global, regional and national diabetes initiatives. Generate data on diabetes and its complications and provide knowledge of the disease to the public and to health care professionals.

The work to identify and develop new partnerships has high priority for the World Diabetes Foundation in 2003. Interested parties with proposals for specific projects are welcome to contact the Foundation by mail:

contact@worlddiabetesfoundation.org
 or through the website:
www.worlddiabetesfoundation.org



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

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

The human and economic costs of diabetes could be significantly reduced by investing in prevention, particularly early detection, in order to avoid the onset of complications due to diabetes.



Dr. Kaushik Ramaiya,
Shindu Medical Center,
Tanzania.

<
Matayo Mkumbo
from Tanzania
has type 1 diabetes

SUPPORTING DIABETES CLINICS IN TANZANIA

Most Tanzanians with diabetes are currently left without any form of treatment – but not for much longer. Since February 2003, the World Diabetes Foundation has worked closely with the Tanzania Diabetes Association to set up diabetes clinics in four of the country's regional hospitals.

Despite a dramatic rise in the incidence of diabetes in Tanzania, very few Tanzanians know about the disease. Access to treatment is still very limited, and if it is available only a minority of the population can afford it. In order to do something about this problem, the Tanzania Diabetes Association and the World Diabetes Foundation have joined forces.

In Tanzania, the number of people with diabetes has tripled in just six years. More than 30,000 Tanzanians have type 1 diabetes while at least 275,000 have type 2 diabetes. With the establishment of the four diabetes clinics, the Tanzania Diabetes Association and the World Diabetes Foundation have taken the first step to make diabetes treatment more accessible. The cost of treatment in the new clinics is affordable for a majority of the patients, and those who cannot pay can receive free treatment.

Establishing access to diabetes care

Initially, the Tanzania Diabetes Association and the World Diabetes Foundation are co-operating to develop the necessary infrastructure at the four selected clinics. The two partners undertake to train staff, subsidise laboratories and supply medicine for treatment of high blood glucose and high blood pressure as well as insulin at manageable prices.

Staff training is particularly essential for the establishment of the four diabetes clinics and for knowledge sharing. The project will not succeed without committed health workers who know about the life-threatening complications following in the wake of untreated diabetes, and who know how radically treatment, counselling and home care can improve the life of a patient with diabetes.



A well-balanced, healthy eating plan is the cornerstone of good blood sugar control in any type of diabetes. The so-called "diabetic diet" is not in fact a diet, but rather a healthy eating plan ideal for all the family. Eating healthily not only helps to control blood sugar levels and delays complications, but also to prevent heart disease.



Diabetic retinopathy is a leading cause of blindness and visual disability. Diabetes mellitus is associated with damage to the small blood vessels in the retina, resulting in loss of vision. Findings, consistent from study to study, make it possible to suggest that, after 15 years of diabetes, approximately 2% of people with diabetes become blind, while about 10% develop severe visual handicap.

Some of the most important tasks of the diabetes physicians and nurses involve the development of a continuous quality care programme. It is up to the staff to ensure that the patient gets the necessary medicine and to maintain written records that show the development of the disease and the complications that must be dealt with. In addition, counselling and self management are decisive factors in diabetes care. The patient must learn, for example, that a correct diet and insulin or oral hypoglycaemic agents can maintain a stable level of blood glucose and that foot care reduces the risk of amputation.

The collaboration between the Tanzania Diabetes Association and the World Diabetes Foundation also involves the establishment of local chapters of the Tanzania Diabetes Association. These chapters are to work as discussion partners for

the staff at the diabetes clinics and ensure the continuance of the diabetes clinics after the project is finished.

Profitable clinics

The hospitals can only maintain the clinics by making them profitable through requesting a minimum payment from the patients for consultation, laboratory investigations and medical supply. However the clinics are expected to be able to continue to offer free treatment and medicine for the poorest patients who cannot afford to pay at all.

Low ranking of diabetes

The inadequate access to treatment and care as well as inadequate knowledge of the

destructive, disabling and life-threatening complications of diabetes demonstrate how low the disease currently ranks in the mind of Tanzanians. They are simply not aware of the fact that heart disease, blindness and kidney failure are among the complications that often develop as a consequence of untreated diabetes. "We can only halt the spread of diabetes by educating health workers and, in this way, reach the ordinary citizen," says Dr. Kaushik L. Ramaiya, Honorary General Secretary of the Tanzania Diabetes Association. "It is this process we want to initiate with the establishment of the four diabetes clinics," he says.

The chosen areas

The four hospitals have been selected on the basis of several criteria which include access to care, awareness, infrastructure and local economics. The total population in the four regions is approximately 6.5 million and divided as follows Kigoma: 1.7 million, Musoma (Mara): 1.4 million, Lindi/Mtwara: 1.9 million, Rukwa: 1.4 million.

// Developing countries are not spared the current worldwide diabetes epidemic. The World Diabetes Foundation will make a real difference to individuals with diabetes in such underprivileged regions. The European Association for the Study of Diabetes, with its focus on the study of diabetes, looks forward to working closely with the Foundation in order to speed improvements in diabetes management and care to all concerned and in the hope of preventing the relentless progress of this non-communicable disease even in the poorest countries. The World Diabetes Foundation's strength is in combining a universal vision with practical solutions - we are all concerned and should be grateful to the Foundation for taking the lead.

Philippe Halban

President, European Association for the Study of Diabetes (EASD)



"In the short run, we expect the four clinics to treat and care for 16,000 diabetes patients. Within a short period, this number should increase to 24,000," Dr. Ramaiya says.

The reason why the World Diabetes Foundation and the Tanzania Diabetes Association have chosen to focus on regional hospitals for a start is that they already have the necessary hospital infrastructure and human resources to cater for life threatening diseases. It is easier to establish a specialised clinic such as for diabetes within this existing infrastructure. The staff is willing to participate actively, is motivated and ready for training in quality diabetes care. Once the four pioneering clinics have been established, attention will be directed to other hospitals.

With an establishment period of 12 months, the four diabetes clinics are planned to be ready by February 2004. The project runs at \$ 42,000 and involves 8-10 doctors and 12-16 nurses initially and with ripple effect more numbers will be involved subsequently.

Diabetic neuropathy is probably the most common complication of diabetes. Studies suggest that up to 50% of people with diabetes are affected to some degree. Major risk factors of this condition are the level and duration of elevated blood glucose. Neuropathy can lead to sensory loss and damage to the limbs. It is also a major cause of impotence in men with diabetes.



// The World Health Organization is certainly alarmed by recent statistics showing the dramatic rise in the frequency of diabetes throughout the world. As a consequence, diabetes has been accorded priority status by WHO. The World Health Organization has a strong interest in enhancing structural capacity in developing countries to deal with major diseases such as diabetes, and we believe that the private sector may play a key role in this process.

Dr Derek Yach
Executive Director
Noncommunicable Diseases and Mental Health,
World Health Organization

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Chen Zexing
from China
has type 2 diabetes

MIDWIFE TO CHINA'S FIRST DIABETES PLAN

More than 30 million Chinese are believed to have type 2 diabetes - so it is about time that the fight against the disease begins. The World Diabetes Foundation supports the first ever diabetes programme in China.

It seems like an enormous task to embark on the project of informing more than one billion Chinese about diabetes and the invalidating complications that are often the result of a late diagnosis. But with the support of the World Diabetes Foundation and Novo Nordisk's Chinese subsidiary, the Chinese Health Ministry is now focusing on diabetes care through the implementation of an ambitious action plan. The initiative is a result of a dramatic increase in the number of Chinese with type 2 diabetes over the past decade. The increase is expected to continue in line with the development of the standards of living in the world's most populated nation.

"As it is, the majority of China's population knows nothing about diabetes and its life-threatening complications. Only 10% of the 30 million Chinese currently estimated to have type 2 diabetes have

been diagnosed," explains Thorkil Kastberg Christensen, General Manager of Novo Nordisk China, which contributes know-how to the action plan. Christensen has in-depth knowledge of the situation in China and is one of the initiators of the diabetes campaign. The Chinese Health Ministry later applied for support to the diabetes programme from the World Diabetes Foundation, and support has now been granted.

Three projects

The Chinese Health Ministry wishes to halt the development of diabetes and has thus prepared a national diabetes plan enlisting the support of the World Diabetes Foundation and Novo Nordisk. The programme has three general projects:

- Preparation of national guidelines for diabetes information, prevention and care



By 2025, while most people with diabetes in developed countries will live to be 65 or more, in developing countries most will be in the 45-64 year age bracket and affected in their most productive years.



People with type 1 diabetes are usually totally dependent on insulin injections for survival. Such people require daily administration of insulin. The majority of people suffering from diabetes have the type 2 form. Although they do not depend on insulin for survival, about one third of the people with diabetes need insulin for reducing their blood glucose levels.

- Establishment and implementation of systems for diabetes care at hospitals
- Establishment of local diabetes support teams consisting of specially trained physicians

The three initiatives will be implemented over a five-year period and are aimed at furnishing the majority of the urban population with knowledge about diabetes and its complications. Early awareness of the disease at all levels of society is essential since this increases the likelihood of discovering the disease early and thus begin treatment in due time.

Effect on 500 million people

The implementation of the diabetes plan is primarily aimed at the populations of China's 311 largest cities, each with populations of half a million people or more. "In this way, the Chinese

expect the programme to have a ultimate long-term effect on the lives of more than 500 million people. The primary goal, however is, to reach the at least 30 million Chinese with diabetes – and then, of course, as many as possible of the doctors and nurses, who work in the cities," says Thorkil Kastberg Christensen.

From words to action

At the moment, national guidelines for diabetes prevention and care are being prepared by a group of 22 experts including physicians, administrators and nutritionists. The guidelines will be prepared on the basis of internationally approved standards for diabetes care and after completion the Health Ministry will forward it to no less than 16,600 hospitals and health care centres in the selected areas.

// The agreement between DANIDA and the World Diabetes Foundation aims to create synergy and ensure additional highly needed resources for building a better healthcare infrastructure in developing countries.

As such it is a good example of how public-private partnerships have obvious potentials as a supplement to traditional governmental aid programmes.

Per Stig Møller

Minister of Foreign Affairs, Denmark

The next step will be to transform words into action. The plan is to train health workers in order to offset the imbalance between the many people with diabetes and the very few qualified diabetes therapists. The shortage of qualified health staff is a significant cause of the low rate of diagnosis and thus one of the indirect causes of the many complications of diabetes.

Roll out plan for hospitals

After health workers have been trained in basic diabetes care, the treatment itself is to be streamlined and made more efficient. "In the beginning of 2004, the plan is to direct focus to the establishment of treatment systems at hospitals," explains Thorkil Kastberg Christensen. "This initiative involves the identification and establishment of diagnosis and treatment systems at, initially, 102 selected hospitals. At a later stage, these hospitals will be responsible for establishing the same systems at other hospitals in their area. The selected hospitals also function as consultants with the aim

of spreading information, so that within five years, relevant information has reached as many hospitals as possible in the selected areas," he says.

Support group at 317 hospitals

Still, hospital treatment is only a part of diabetes care. Self-management is another decisive factor if people with diabetes are to minimise the invalidating complications that often follow in the wake of untreated diabetes. "Diabetes support groups consisting of specially trained doctors will be established at, initially, 37 selected local hospitals. These groups are to provide patient training and teach people with diabetes how to minimise the complications of their disease, for instance by treating their feet properly in order to remove the risk of amputation. They will also tell people that exercise, a healthy diet and the proper use of insulin keep the blood glucose at a stable level," says Thorkil Kastberg Christensen. At the end of the project, it is expected that diabetes support groups have been implemented at 317 hospitals, covering more than half of the population in the "Middle Kingdom".



Insulin is unavailable and unaffordable in many poor countries, despite being listed by WHO as an essential drug. Access to insulin by those who require it, is a subject of special concern to international health agencies, national health authorities and to the World Diabetes Foundation.

THE WORLD DIABETES FOUNDATION MEMBERS OF THE BOARD



Ida Nicolaisen

An anthropologist and senior researcher, Ida Nicolaisen's membership of the World Diabetes Foundation Board brings to the organisation a deep knowledge of and passionate interest in the diverse perceptions of life in the developing world.

As senior researcher at Copenhagen University's Nordic Institute of Asian Studies, Nicolaisen has spent many years researching and working with the developing world. Her widely acclaimed expertise has made her a sought-after specialist, filling posts such as the deputy chairman DANIDA, the Danish Foreign Ministry's International Development Assistance.

She is also on the board of several institutions, including Crown Prince Frederik's Foundation, and has recently been elected to the board of the United Nations Permanent Forum on Indigenous Issues that takes care of the interests of the world's 300-500 indigenous people. She is now in the process of editing a 16-volume work about the nomad peoples of the world.

Despite her already broad duties, Ida Nicolaisen has expanded her interests to include the World Diabetes Foundation, seeing two main purposes for her work on the board. Firstly making sure that the projects reach the poorest and most exposed groups. These are often indigenous, for instance the Indians in Central America and the Polynese in the Pacific region. Her second mission is to make sure that the projects are anchored locally.

"My experience from field work and DANIDA projects has taught me that in order to create a success from their contribution, local authorities and partners such as hospitals need to feel an ownership of the project. In places where new systems and lines of command are being taken care of locally, the projects still exist ten years after the relief organisations have pulled out," says Ida Nicolaisen.

"It is no good that we always bring our western, medical philosophy when other people regard body and disease in a totally different way. In such cases our starting point must be something quite different than medicine.

- Ida Nicolaisen



Ib Bygbjerg

Few Danes have dedicated their lives to the battle for general health improvement in the world's poorest countries as Ib Bygbjerg, a professor of international health, and one of the most respected figures in his field. It was therefore a major scoop for the World Diabetes Foundation to enlist the support of this fiery physician as a board member.

With thirty years of medical experience in fighting and preventing all types of sickness in the developing world, Ib Bygbjerg brings to the Board a depth of understanding of not only the problems, but also the potential for health action in the poorer countries.

After his graduation as a medical doctor in 1972, Ib Bygbjerg has been a frequent visitor to some of the world's poorest nations, living and working in, among other countries, India, Tanzania and the Democratic Republic of Congo. His experience and further education in these countries has made him a leading international expert on infectious diseases and tropical medicine.

Although research and expertise in tropical diseases such as malaria and other infectious diseases would seem to be far from the problems of diabetes, Ib Bygbjerg says there are striking similarities between them. "Diabetes can be compared with many infectious diseases that are developing at a high rate and threatens the lives and living conditions of millions if it is not addressed," explains Ib Bygbjerg.

"We must focus on education, education and more education of health personnel, and of course try to develop the necessary facilities to treat people with diabetes. Therefore information and prevention are among the World Diabetes Foundation's focus areas," he says. "A long career in medicine has taught me that prevention is better than cure, and that is why education and information are so important. I see the Foundation

"Many developing countries like India and China, for example, are in a few decades introducing the social development that took 200 years in the West. This means that a so-called lifestyle disease like diabetes spreads quickly in these countries and requires a major effort.

- Ib Bygbjerg

as a major factor in the challenge of disseminating information to the many countries facing the colossal challenge of an explosion in diabetes frequency. That is why I was happy to be asked to work with the World Diabetes Foundation, in which I see my role as the person who knows the health systems in the developing world from the inside," concludes Ib Bygbjerg.

Sir George Alberti, Chairman

A recognized international authority both in the academic and in the clinical field of diabetes. Sir George Alberti qualified in Medicine and Biochemistry from Oxford University in 1965. He was Professor of Chemical Pathology in Southampton before moving to the University of Newcastle as Professor of Clinical Biochemistry and subsequently Professor and Dean of Medicine.

Sir George Alberti has held numerous important and prestigious international positions including Editor-in-Chief for Diabetologia, President of EASD, Advisor to WHO and President of the Royal College of Physicians in London. He is currently President of the International Diabetes Federation and is also the National Clinical Director for Emergency Access for the UK Department of Health.

He has worked over three decades both nationally and internationally to improve access to good diabetes care, not least in the developing world where he has initiated and maintained a huge research interest. Sir George Alberti has received several international awards for his lifelong devotion to diabetes.

Anil Kapur, Vice Chairman

Anil Kapur is Vice-President (International Operations) and Managing Director of Novo Nordisk India Private Ltd., and the author of more than a dozen books on diabetes management and the co-ordinator of two large-scale studies on diabetes, "The cost of diabetes care in India' and the 'National Urban Diabetes Survey'. Dr. Kapur has initiated the development of several diabetes

programmes and public awareness campaigns as part of the Novo Nordisk Education Foundation and has given numerous lectures on diabetes in India and around the globe. Dr. Kapur is the author of more than ninety papers in the disciplines of Internal Medicine, Clinical Pharmacology and Endocrinology; he is also a regular contributor to diabetes magazines.

Lars Rebien Sørensen

President and CEO of Novo Nordisk - a pharmaceutical company known for its expertise within diabetes care, and for its social responsibility and dedication to improving life for people with diabetes. It was only natural, that Lars Rebien Sørensen was the founding father of the World Diabetes Foundation.

One way Lars Rebien Sørensen prepared to become CEO of Novo Nordisk was through a trip to more than 10 countries around the world, where he met stakeholders in the diabetes community such as diabetes specialists, doctors, nurses, people with diabetes, politicians and patient organisation thus receiving in-depth knowledge of diabetes around the globe on a first hand experience. Returning from this trip he saw the need for advocacy for the global diabetes epidemic and felt sure that the health care industry could play an important positive role in facilitating better conditions for people with diabetes.

Lars Rebien Sørensen has a Master's degree in forestry from the Royal Danish Veterinary and Agricultural University and a BSc in International Economics from The Copenhagen Business School. He has spent most of his professional career in Novo Nordisk, first in Novo Nordisk's Enzymes Marketing department and later as President of International Operations of the Bioindustrial Group before joining Corporate Management. He was appointed president and CEO in 2000. Lars Rebien Sørensen is also a member of the Board of SAS (Scandinavian Airlines System AB) and ZymoGenetics, Inc.



"The biggest challenge in the fight against diabetes is lack of awareness at all levels.

- Sir George Alberti



"We need to educate and build health care capacity to ensure access to diabetes care.

- Anil Kapur



"Travelling around the world I saw the need for advocacy for the global diabetes epidemic and felt sure that the health care industry could play an important positive role in facilitating better conditions for people with diabetes.

- Lars Rebien Sørensen



Evelin Pérez
from Mexico
has type 1 diabetes

MANY DIFFERENT CRITERIA FOR THE WORLD DIABETES FOUNDATION PROJECTS

An application to the World Diabetes Foundation is evaluated on the basis of many different criteria.

First of all, it must describe a realistic and controllable project with a minimal need of infrastructure. "It is important that some infrastructure in the form of roads, buildings, physicians, clinics or medicine already exists since, as a relatively small organisation, we do not have the capacity to start a project from scratch. Our priority is to assume the role of a catalyst, which means that our involvement has to trigger others and thus create a far greater effect," says Leif Fenger Jensen, Managing Director of the World Diabetes Foundation.

A World Diabetes Foundation project must be sustainable or long-term, which means that it must be able to continue after the funding from the World Diabetes Foundation has ended. The best way to ensure long-term operation is the involvement of one or several reliable partners. Such a partner could be a local "champion", which is a person or organisation with the necessary influence and authority to implement the project. The "champions" are often recognised physicians, health organisations, relief organisations or even the local health minister.

Multiplier effect

The World Diabetes Foundation is also looking into whether these or other partners are willing to contribute financially to the project ensuring an appropriate multiplier effect for the World Diabetes Foundation funding. In this way, one dollar invested by the

World Diabetes Foundations attracts a further one, two or three dollars from other channels.

A final criterion for the World Diabetes Foundation's evaluation of a project is the degree of political goodwill. A lack of political understanding of diabetes and its devastating complications is one of the most essential reasons for poor diagnostic resources and limited access to treatment. "So unless we see a political motivation for helping people with diabetes, for instance in the health ministry, it is unrealistic to believe that the population will benefit from the initiative," says Leif Fenger Jensen.

How to apply for funding

The working procedure of the World Diabetes Foundation implies that all incoming project proposals are handled by the secretariat to ensure that alignment with the scope of the Foundation is in place. The secretariat also ensures that the information available to the Board of Directors is at a satisfactory level both in terms of amount and quality. This is done in close cooperation with the applicant. Following the positive outcome of this procedure, the projects are presented to the Board of Directors for decision regarding possible funding. The Board of Directors meetings take place four times a year.

Information about deadlines for submission of applications and board meeting dates can be found on the website of the World Diabetes Foundation: www.worlddiabetesfoundation.org



The majority of adults and a large number of children lead an overly inactive lifestyle. Although fitness is fashionable in developed countries, we are still becoming less and less active. Physical activity is vital for everyone. Exercises help improve fitness, burn calories and thus reduce body fat, and increase muscle tone. Physical activity is key to good health.

For people with diabetes, exercise lowers blood sugar. Like insulin, it also helps the body use its blood sugar efficiently.

Exercise may also help insulin to work better. A person with diabetes will experience the same benefits and enjoyment from exercise as everyone else. Such benefits include weight control and psychological benefits.

THE WORLD DIABETES FOUNDATION'S ANNUAL ACCOUNTS

| Profit and Loss 7. February - 31. December 2002 | | Balance pr. 31. december 2002 | |
|--|---------------|--|---------------|
| Thousand DKK | | Thousand DKK | |
| Donations from Novo Nordisk and others | 71.738 | Assets | |
| Administration expenses | -2.959 | Locked-up capital bank | 260 |
| Project expenses | -1.258 | Fixed assets | 260 |
| Other expenses | -40 | Receivable donations from Novo Nordisk A/S | 9.903 |
| Profit before financials and tax | 67.481 | Interest receivable | 2.012 |
| Financial income | 1.378 | Other receivable | 6 |
| Profit before tax | 68.859 | Total receivable | 12.181 |
| Net profit for the year | 68.859 | Securities | 54.594 |
| | | Cash | 3.160 |
| Proposed appropriation of net profit for the year | | Current assets | 69.935 |
| Donations from the World Diabetes Foundation | 42.965 | Total assets | 69.935 |
| Retained earnings for the year | 25.894 | Equity and Liabilities | |
| | 68.859 | Locked-up capital bank | 260 |
| | | Retained earnings for the year | 25.894 |
| | | Total equity | 26.154 |
| | | Payable donations | 42.915 |
| | | Other provisions | 384 |
| | | Payables to Novo Nordisk A/S | 266 |
| | | Other short-term payables | 216 |
| | | Total short-term liabilities | 43.781 |
| | | Total equity and liabilities | 69.935 |

For full details of the annual accounts please refer to our website:
www.worlddiabetesfoundation.org

// As the global advocate for people living with diabetes, the International Diabetes Federation welcomes the birth of the World Diabetes Foundation. With the help of the World Diabetes Foundation, we hope to improve the condition of those affected by diabetes, to increase awareness about the condition and to contribute preventing it to occur in the millions of individuals at risk worldwide.

Professor Pierre Lefebvre

International Diabetes Federation, President elect

DONATIONS BY THE WORLD DIABETES FOUNDATION

| | | | |
|----|---|-----|------------|
| 4 | International Diabetes Federation / WDF Fellowships | DKK | 283.288 |
| 5 | International Diabetes Federation Africa Region | DKK | 885.275 |
| 3 | World Health Organisation and International Diabetes Federation | DKK | 12.290.726 |
| 7 | Health of Population in Transition Research Group | DKK | 9.958.955 |
| 11 | DanChurch Aid (Folkekirkens Nødhjælp) | DKK | 1.397.424 |
| 2 | International Diabetes Federation | DKK | 2.124.660 |
| 12 | Tanzania Diabetes Association | DKK | 297.664 |
| 6 | International Diabetes Federation Africa Region | DKK | 1.867.944 |
| 10 | The Trustees of the International Insulin Foundation | DKK | 931.309 |
| 8 | Ministry of Health, People's Republic of China | DKK | 9.700.000 |
| 9 | Aravind Eye Hospital | DKK | 450.068 |

According to §8 in the statutes of the World Diabetes Foundation, net profit generated by the Foundation in any given year must in so far as possible be distributed in that financial year. It has not been possible to meet this requirement to the full extent in 2002. Being the first year in the Foundation's existence, 2002 must be considered a year of establishment in which rules of procedure, guidelines and strategy were defined. The first board of directors meeting was in May 2002 where election of chairman, vice chairman and auditors and decision on general matters took place. The board of directors decided in 2002 to support 12 out of 45 applications upon careful consideration of alignment of the individual project with the requirements laid down by the Foundation. The secretariat has worked intensively to formulate the application form and guidelines for applying, and this work was finalized towards the end of the year.

WORLD DIABETES FOUNDATION

Annual Review 2002

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

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 to those
impacted by diabetes.



WORLD **DIABETES** FOUNDATION