

# STAR



A GLOBAL EDUCATION  
PROGRAMME TO IMPROVE  
DIABETES CARE IN PRACTICE

steno 

novo nordisk fonden



# A THREAT TO GLOBAL HEALTH

Some people have kidney damage; others get cardiovascular disease. Some have a foot amputated; others go blind.

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**Expectant mothers wait for diabetes screening and education at a clinic in Madurai, India.**

Diabetes can have catastrophic consequences – for individuals, for their families and for society. In recent decades, diabetes has become one of the most serious global health challenges. Today an estimated 371 million people have diabetes, and this number is expected to rise to 550 million by 2030. More than 4 million people die annually from diabetes-related complications.

Unhealthy lifestyles and higher life expectancy are among the reasons for the increasing incidence of diabetes. China and India top the list of the countries with the most people with diabetes, and about 80% of all people with diabetes live in low- and middle-

income countries. The health systems in most of these countries are not geared to handle the rapidly increasing demands for treatment, and the need for training and education of health professionals is critical.

The mission of the STAR programme is to improve the skills of the health professionals involved in diagnosing and treating diabetes in low- and middle-income countries. Steno Diabetes Center operates the programme, which is funded by the Novo Nordisk Foundation.

The STAR programme has no product or commercial content.

# TRANSLATING KNOWLEDGE INTO CLINICAL PRACTICE

STAR is an international education programme for doctors, nurses and other health professionals working with diabetes in low- and middle-income countries.

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STAR educates health professionals in the prevention, diagnosis and treatment of diabetes and its complications and disseminates the latest knowledge about the disease.

The Steno Diabetes Center manages and develops the STAR programme and teaches the courses in the respective countries.

“Our mission is to provide health professionals with comprehensive knowledge about diabetes to benefit the many people with diabetes they meet on a daily basis. We do this by organ-

izing courses on the team-based treatment of diabetes, assessing the quality of treatment and disseminating the latest research. The courses are further designed to create global coherence and increase the understanding of the disease across national borders and professional disciplines”, says Dr Ulla Bjerre-Christensen, Head of Education at Steno Diabetes Center.

The STAR programme was launched in 2000 to address the increasing demand for education of health professionals in response to the explosive growth of diabetes in many countries. Since then,

close to 8,000 participants have attended over 100 courses, primarily in India and China.

“The teaching targets countries and areas in which the participants would find it difficult to fund the costs of having to travel to receive an equivalent education or information update on the treatment of diabetes”, says Dr Ulla Bjerre-Christensen.

“STAR courses create an environment in which the participants can exchange experiences and solution models for the problems all health professionals

“The STAR programme aims to improve the knowledge of diabetes treatment among health professionals to give people with diabetes a healthier life”.

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Ulla Bjerre-Christensen, MD, PhD,  
Head of Education, Steno Diabetes Center

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confront on a daily basis. This improves treatment and increases the opportunities for everyone with diabetes to live a normal and complication-free life”, says Dr Ulla Bjerre-Christensen.



# PARTICIPATORY LEARNING

Two types of STAR courses are held: Practical Diabetology and STAR Update.

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Participants at a  
Practical Diabetology  
course in Cochin,  
India.

## STAR stands for Steno Training and Application of Resources.

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**The STAR Update** course targets doctors working in clinical diabetology. The course lasts two to three days and focuses on communicating the latest research results on diabetes and converting this knowledge into clinical practice. The teaching combines lectures and workshops with case-based discussions.

The course topics include screening for, treating and preventing diabetes, early diagnosis, genetics and diabetes-related complications.

The course teaching team comprises five specialists in diabetes research and treatment, mainly doctors and biomedical researchers specializing in the topics taught in the course.

**The Practical Diabetology** course targets physicians, nurses, dieticians and other health professionals working with diabetes. The course lasts three days and focuses on effectively treating and preventing the complications associated with diabetes.

The teaching is interactive and switches between lectures and workshops in which the people attending the course participate actively, with plenty of opportunities for discussing and exchanging their experiences.

The course topics include good communication between patients and health professionals, teamwork in which participants learn how to optimally use the

resources of the employees in the local clinics as well as motivation, empowerment and quality assurance in their daily work. The course also includes a practical exercise in which the participants try to live like a person with diabetes for three days.

The courses have no product or commercial content.

If you have questions or wish to attend a STAR course please contact Steno Diabetes Center.

# REACHING OUT TO THE WORLD

The STAR programme has held more than 100 courses attended by close to 8,000 doctors, nurses and other health professionals.

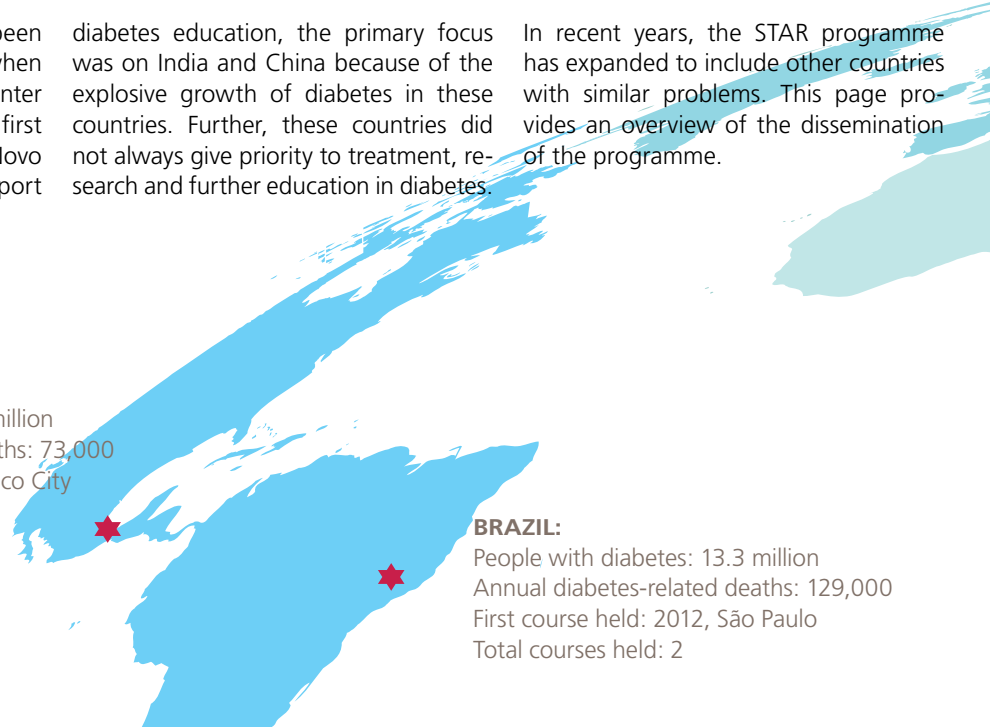
Interest in the STAR courses has been increasing since December 2000, when staff from the Steno Diabetes Center flew to New Delhi, India to hold the first course. When the Board of the Novo Nordisk Foundation decided to support

diabetes education, the primary focus was on India and China because of the explosive growth of diabetes in these countries. Further, these countries did not always give priority to treatment, research and further education in diabetes.

In recent years, the STAR programme has expanded to include other countries with similar problems. This page provides an overview of the dissemination of the programme.

## **MEXICO:**

People with diabetes: 10.6 million  
Annual diabetes-related deaths: 73,000  
First course held: 2012, Mexico City  
Total courses held: 2



## **BRAZIL:**

People with diabetes: 13.3 million  
Annual diabetes-related deaths: 129,000  
First course held: 2012, São Paulo  
Total courses held: 2



A stylized map of the Middle East and Southeast Asia region, colored in shades of teal. Red stars mark the locations of Turkey, Tunisia, India, and Indonesia. Text boxes provide diabetes statistics for each country.

**TURKEY:**

People with diabetes: 3.6 million

Annual diabetes-related deaths: 32,000

First course held: 2010, Istanbul

Total courses held: 6

**CHINA:**

People with diabetes: 92.2 million

Annual diabetes-related deaths: 1.1 million

First course held: 2001, Beijing

Total courses held: 43

**TUNISIA:**

People with diabetes: 648,000

Annual diabetes-related deaths: 4,800

First course held: 2010, Tunis

Total courses held: 4

**INDIA:**

People with diabetes: 63 million

Annual diabetes-related deaths: 1 million

First course held: 2000, New Delhi

Total courses held: 44

**INDONESIA**

People with diabetes: 7.5 million

Annual diabetes-related deaths: 155,000

First course held: 2012, Jakarta

Total courses held: 2

Source:

Diabetes atlas, International Diabetes Federation, 2012

# STAR CHANGED MY TREATMENT METHODS

Attending a STAR course in Cochin, India gave Dr Dorphy new insights into diabetes treatment.

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10 On the outskirts of Cochin in southern India, Dr P.D. Dorphy runs a small practice with seven employees.

"I see around 50 patients per day. Of those, nearly 30–35 have diabetes. We see all sorts of complications. We have patients with retinopathy, neuropathy, foot problems, cardiovascular disease and nephropathy. Diabetes is a very great problem", says Dr Dorphy, sitting behind the desk in his consultation room.

The experienced doctor has specialized in foot care. His interest in this area was sparked by attending the STAR Practical Diabetology course in Cochin in 2006.



Dr Dorphy with members of his staff outside his clinic.



“I had a very great learning experience during the course”, he says.

“Frankly speaking, I did not know much about preventing and screening for foot complications until I attended the short course. The course gave me detailed insight into these problems. After the course, we started screening regularly. We try to teach patients about foot care and do some preventive work for them. Now I am able to save a large number of feet that otherwise were at risk of being amputated.”

“It was the same with retinopathy. If the patient did not complain, we mostly did not screen. Now we know

that even if some patients are asymptomatic, we should screen them. And we know which patients we have to send to a specialist. Everything came after that short course.”

In the clinic waiting room, patients are starting to queue up. Dr Dorphy’s first patient is a man whose left foot and leg is flaming red from his shinbone down. As many people in India walk barefoot, foot problems is a huge challenge. Next, he examines a woman’s eyes with an ophthalmoscope.

According to the doctor, diabetes is not just a problem for the individual but for the whole family and for society:

“I see diabetes in almost all families. Once a person develops diabetes, he or she has to spend a lot of money on hospital visits, and their working capacity is reduced. So it not only affects them – it affects the whole family.”

Seven years after attending the STAR course, he still uses the methods he learned at the course.

“We learned about all the steps we can take as basic physicians. It definitely changed the treatment methods that I follow. I believe my patients are getting better treatment after I attended the STAR course.”

# COURSE FEEDBACK

Five health professionals share their experiences of participating in a STAR Update course or a Practical Diabetology course.

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“ Living like a person with diabetes for three days has made me realize the worries and barriers that patients have to cross. Now I can think from their perspective. I can understand their fears and give better guidance. I wish all health professionals could have this experience.”



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“ It was a nice compact course with plenty of opportunities to acquire fresh information about diabetes research. It was high-level education with a lot of interaction between the participants and the teaching staff. The knowledge I gained made me alter some of my treatment methods.”



Dr Hassen Derbel,

STAR Update,  
Tunisia

“ The course provided me with updates on the latest diabetes research, in particular on gestational diabetes and genetics. The teaching methods of the course were excellent. The small group workshops gave everybody an opportunity to express themselves, which enriched the discussions and made the course very profitable”.



Chandra Sekar,  
dietician

Practical Dia-  
betology, India

“The course has taught me how to work in a better way and make life better for the patients. I have learned to listen more to the patients. It is a very important and useful course. I will recommend my colleagues to join this programme if there is an opportunity”.



Dr Arti Trivedi,  
professor

Practical Dia-  
betology, India

“ I have never seen a course like this before. Generally, conferences just have lectures, but this course is completely different in the sense that every module addressed some practical point. It is hands-on training. There are so many things here I feel I should be telling my students”.

# STENO DIABETES CENTER

Steno Diabetes Center is an internationally recognized institution with more than 80 years of experience within diabetes care and research.

The Center is a not-for-profit organization working in partnership with Denmark's health care system. The vision of the Center is to become a global leader in diabetes care and translational research with a focus on prevention and early stages of the disease. The Center is located just north of Copenhagen and treats around 5,300 people with diabetes every year.

Steno Diabetes Center is organized into four centres that work closely together and cover the entire spectrum of diabetes: research, prevention, treatment and education:

Steno Research Center  
Steno Health Promotion Center  
Steno Patient Care Center  
Steno Education Center.

The history of Steno Diabetes Center dates back to 1932. That year, Niels Steensens Hospital was established offering treatment to people with diabetes – including treatment free of charge for a large number of people of limited means. The hospital also became a site for successful research into the causes and development of diabetes. In 1992, Niels Steensens Hospital merged with Hvidøre Hospital to create the Steno Diabetes Center.

Steno Diabetes Center is owned by Novo Nordisk A/S. The costs of running the Center are co-financed by Novo Nordisk A/S, the Novo Nordisk Foundation and the Capital Region of Denmark.



# NOVO NORDISK FOUNDATION



The Novo Nordisk Foundation is an independent Danish foundation with corporate interests. Its history dates back to the 1920s.

The objectives of the Foundation are:

- 1) to provide a stable basis for the commercial and research activities of the companies in the Novo Group; and
- 2) to support scientific, social and humanitarian purposes.

The vision of the Foundation is to contribute significantly to research and development that improves the health and welfare of people. Through its grant activities, the Foundation aims to promote independent world-class research at universities and hospitals in Denmark and the other Nordic countries. All grants are awarded based on applications received and assessed by international experts. Researchers decide their own research priorities and are free to publish as they wish.

Since 2007, the Foundation has donated more than €600 million, primarily for research within the fields of biomedicine and biotechnology.

The Foundation has awarded substantial grants over the years to Steno Diabetes Center. In addition to funding the operating costs of the Center, the Foundation awards annual grants for research and education projects under the auspices of the Center: Steno Health Promotion Center and the STAR programme. The STAR programme is part of the Foundation's social and humanitarian activities. Since the programme started, the Foundation has donated more than €15 million to the programme.

The Foundation derives its income primarily from dividends from companies in the Novo Group.

**NOVO NORDISK FOUNDATION**

Tuborg Havnevej 19  
DK-2900 Hellerup  
Denmark  
Telephone: +45 3527 6600

[nnfond@novo.dk](mailto:nnfond@novo.dk)  
[www.novonordiskfoundation.com](http://www.novonordiskfoundation.com)

**STENO DIABETES CENTER**

Niels Steensens Vej 2  
DK-2820 Gentofte  
Denmark  
Telephone: +45 3968 0800

[info@steno.dk](mailto:info@steno.dk)  
[www.steno.dk](http://www.steno.dk)



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