

Interview

The future of diabetes prevention: a look at how the field is developing



Peter Schwarz is the Chief of the Division of Prevention and Treatment of Diabetes at the Department of Internal Medicine III, University Hospital Carl Gustav Carus in Dresden. His research focuses on care and prevention of diabetes, as well as identification of genetic factors and epistatic effects for Type 2 diabetes mellitus. Peter Schwarz is coordinating the German work group called Diabetes Prevention and is a member of the scientific advisory board of the Diabetes-Preventions-Forum (DPF) of the International Diabetes Association in the European Union (IDF-EUROPE). Peter Schwarz is also the coordinator of the European IMAGE project. The project was set up to establish guidelines and standards for the prevention of Type 2 diabetes in Europe. Peter Schwarz has received the Rolf-Emmrich-Award of the Saxony Association of Internal Medicine (2002), the Sur-Place-Award from the Alexander von Humboldt Foundation (2006), the MEDICA Award (2010) for the evaluation and development of diabetes risk assessment strategies in primary clinical practice, and, most recently, the Dresden Congress Award for the best international congress in Dresden (WCPD).



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■ How did you first become interested in research related to diabetes prevention?

I started my research in the field of the genetics of Type 2 diabetes. During this work I recognized that, using genetic or anthropometric information, we are able to identify individuals with increased risk for developing chronic disease. At this stage we built upon the concept that for people with increased risk we should start acting to prevent the disease from developing. It was in 1999 when I first started thinking about diabetes prevention. From this point on I continuously worked in the field and also developed my research interest for diabetes prevention.

■ How did your career lead you to the University of Dresden?

I was already a student at the University of Dresden from 1991 to 1998. From there I went on to carry out research in the USA and also for studies in South Africa and Tanzania. Later, I took a position as a research director at the University of Helsinki and finally came intermittently back to Dresden. The great option was that in Dresden a professorship for prevention and care of diabetes was developed, which was the first professorship of this kind in Europe, and I was very lucky and happy to get the chance to receive this endowed chair.

■ What do you consider to be the biggest achievement in your career so far?

I am not sure what the biggest achievement is. I think that it was an important achievement to raise awareness for the prevention of diabetes in the research community in the medical field but also for stakeholders, politicians and policy makers. Another achievement was to finish the first evidence-based and practice guideline for diabetes prevention as part of the IMAGE project.

■ Your recent work has focused on the IMAGE guidelines project; could you tell us more about this?

We have developed the IMAGE project following the idea that we should develop standards and tools for the practical implementation of diabetes prevention. We were sure that there are many people who are interested in diabetes prevention and many are motivated to do something. What is lacking is the knowledge about standards and guidelines for diabetes prevention and adequate training of people to implement these prevention programs. The objectives of the IMAGE project were as follows:

- To develop a practice and evidence-based guideline for diabetes prevention;
- To develop a curriculum for the training of prevention managers;

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- To develop standards for quality management in diabetes prevention.

These three objectives are important in order to know exactly which steps are necessary for the training of prevention managers and also in order to monitor the quality of diabetes prevention. In May 2010 the IMAGE project finished and we were able to deliver all the objectives we had proposed.

■ **What impact do you hope the IMAGE guidelines will have on future diabetes care?**

I especially hope that the practice guideline ‘Toolkit for the prevention of Type 2 diabetes’ will have a great impact [1]. At present, we are translating the toolkit in to different languages and I hope that the toolkit becomes a standard technical handbook for diabetes prevention internationally. The other aspect is the training of prevention managers. A prevention program can only be successful if there are enough people trained to deliver preventive intervention. Therefore, in several European countries, but also internationally, we are starting to train prevention managers with many colleagues worldwide. If we can realize this, IMAGE will have a strong impact on the realistic ability to prevent diabetes.

■ **Why is it so important to bring together people working in the field of diabetes prevention?**

Parallel to the IMAGE project, but also as I was chosen to be the president for the 6th World Congress on Prevention of Diabetes and its Complications, we thought it would be important to bring together people who are interested in diabetes prevention. This was the time when the idea for the diabetes prevention directory of people “who are active in diabetes prevention” was born. We wanted to build a global network to distribute knowledge and know-how for diabetes prevention. Our initial aim was to bring 300–500 people together, but after only 2 months more than 1000 people showed an interest, and to date, nearly 4000 people are active in this diabetes prevention network internationally. This is a big achievement and an important step toward

implementing diabetes prevention into clinical practice internationally. Only by knowing each other and exchanging ideas and experiences do people with an interest in diabetes improve their work and can be encouraged to start. We knew in the past that there were many people worldwide who wanted to start a prevention program and who were interested in doing it. By bringing together all those people from different fields of expertise (politics, insurances, research medical care and policy development) we can raise the chance that prevention programs are implemented on a national scale. This has already been successful. In several countries in Asia, but also in Europe, national programs have already commenced. The training for prevention managers has already started in nine countries in Europe. This was encouraged and also distributed by this global network.

■ **What projects will you be working on in 2011?**

For the year 2011 we are planning to develop a virtual prevention center. The idea behind this is to distribute know-how, knowledge and especially practical intervention material for diabetes prevention globally. The practice guidelines, and also material for the training of prevention managers, will be freely accessible to everyone who wants to use it. For example, if the people in Pakistan upload material in Urdu, which is the language they are using in their prevention program, physicians in Norway or Australia can have access to this material and can use it while working with Pakistani immigrants to prevent diabetes. This will make diabetes prevention more realistic and more centered to the individual with increased risk. This is necessary in order for the program to be more successful.

■ **What advances do you hope to see in the field of diabetes prevention over the next 5 years?**

If you think about the next 5 years, it will be important to establish structures. Diabetes prevention does not have a place yet in many healthcare systems. Therefore, we have to develop models to identify diabetes risk in a standardized manner, but also to establish structures



(prevention managers, reimbursement structures and quality management in diabetes prevention) in order to enable diabetes prevention in clinical practice. We would like to do whatever is necessary to encourage and support this process with the Virtual Prevention Center, the International Network, for example, by establishing quality management for diabetes prevention on an international level. Other options include new tools deriving from telemedicine development, which can be used in diabetes prevention. I am very sure that we will make a big step forward in the next 5 years and I hope that diabetes prevention will become clinical reality.

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Reference

- 1 Lindström J, Neumann A, Sheppard KE *et al.*: Take action to prevent diabetes – the IMAGE toolkit for the prevention of Type 2 diabetes in Europe. *Horm. Metab. Res.* 42, 37–55 (2010).