



ACTION PLAN FOR TYPE 2-DIABETES 2016-2019



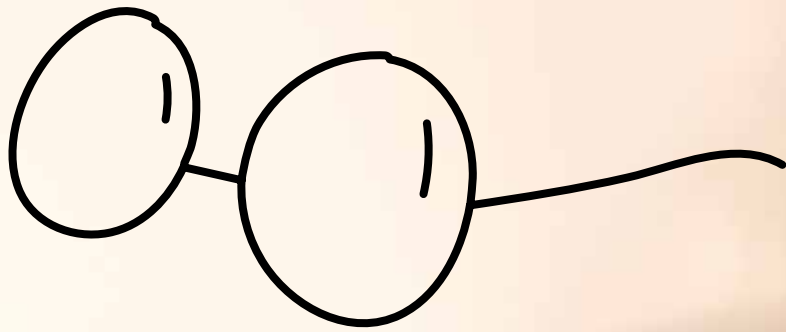
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ENJOY LIFE, COPENHAGENERS!
COPENHAGEN'S HEALTH POLICY



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TYPE 2 DIABETES IN COPENHAGEN

The vision inherent in the City of Copenhagen Health Policy is to ensure that Copenhageners attain an improved quality of life and have an equal opportunity to live a long and good life. A major challenge in relation to fulfilling this vision is the statistics showing that 5.1% of the adult population in Copenhagen have been diagnosed with diabetes, and about one quarter of these people have diabetes without knowing it. The prevalence of diabetes is forecast to rise to 6.7% of Copenhageners by 2040. The effect of this is that the number of Copenhageners diagnosed with diabetes will grow by nearly 27,000 to about 51,500 in 2040, making diabetes the fastest-growing chronic disease.

Today, total expenditure on treatment, care and production loss resulting from Copenhageners with diabetes is DKK 2.9 billion. This amount is expected to increase to DKK 6.3 billion by 2040 unless action is taken.

*Source:
Cities Changing Diabetes, november 2015*

We need a more holistic approach where the citizen with type 2 diabetes is at the centre of our attention. Including all the aspects and implications that affect our daily life. This is why we have formulated a Copenhagen action plan for diabetes, providing clear directions for how to ensure improved rehabilitation and treatment for Copenhageners living with type 2 diabetes.

Convincing arguments in favour of an extra effort

Type 2 diabetes is a chronic disease caused by disturbances in the body's metabolism of sugar, fat and proteins. The condition typically worsens over time and may involve a range of complications that impair the quality of life. People with type 2 diabetes have, for instance, an increased risk of developing cardiovascular diseases, eye diseases, foot and leg ulcers and kidney diseases. At the same time, living with diabetes has major psychosocial implications. In other words, there are countless convincing arguments in favour of making an extra effort for the many Copenhageners diagnosed with diabetes and for the large group of people at risk of developing diabetes in the years ahead.

Second to none in type 2 diabetes

By virtue of its size, Copenhagen has a unique opportunity to be instrumental in providing the framework for the healthcare system of tomorrow. With this action plan, the City of Copenhagen aspires to meet the challenges posed by the continued growth in diabetes prevalence by establishing a local government diabetes programme that is second to none.

Many people with type 2 diabetes encounter inappropriate control of the disease and, consequently, complications ensue. Besides, only half of Copenhageners with newly diagnosed diabetes are referred to a local authority rehabilitation facility.

*Source:
City of Copenhagen*

WE WILL TAKE ACTION WITHIN THREE TRACKS, focusing on the Copenhageners who have the greatest needs.

TRACK 1: Inequality in prevalence and implications of diabetes must be reduced

TRACK 2: Centre for Diabetes – the framework of a cohesive type 2 diabetes strategy

TRACK 3: New innovative solutions



LESS INEQUALITY AND FEWER IMPLICATIONS

Many Copenhageners develop type 2 diabetes, but prevalence and mortality rates are much higher among some groups in society than among others. Inequality is linked to educational attainment, labour market attachment, gender, marital status, address and ethnicity. This means in other words that a man from a Pakistani background who lives alone in the neighbourhood of Brønshøj, has little or no education and is unemployed are at a much greater risk of developing diabetes compared with a woman of Danish ethnicity who lives in Østerbro with her family and who holds a university degree and is in employment.

Not only is the prevalence of type 2 diabetes unevenly distributed among Copenhageners. The inequality is also reflected in the fact that the implications of living with diabetes are relatively more significant for some groups. Unskilled and ill-educated people with diabetes, for instance, experience more outpatient hospital visits, more hospital admissions and fewer quality years than people with diabetes who have a university degree.

Lack of energy makes it difficult to address diabetes

The causes of inequality must be found in citizens' life situations. People with low education, out of work and with weak social networks experience accumulation of difficult living conditions. Financial and social problems make it hard for these people also to focus on preparing healthy food and getting sufficient exercise because other issues are more pressing. Their complex circumstances make them particularly vulnerable to developing diabetes. Therefore, it is not necessarily a lack of knowledge and motivation that is an obstacle to performing self-care, executing a diabetes plan, sustain changes over time and ensuring appropriate control of the disease. Rather, this obstacle is due to complicated life circumstances.

In Copenhagen, 18.5% of ill-educated and unemployed citizens from ethnic minority backgrounds are diagnosed with diabetes, against 9% of ill-educated, unemployed Copenhageners of Danish ethnicity.

*Source:
Rules of halves, 2015*

Healthcare system may aggravate inequality

Inequality is aggravated by the fact that the National Health Service typically communicates to citizens who have completed higher education courses and, to a lesser extent, takes into account that it is more difficult for unskilled and ill-educated people, older people and ethnic minority people to understand the authorities and navigate the system. Inadequate information and failure to involve people properly in decisions during the progression of their disease limit the citizens' possibilities of managing their own disease. This contributes to exposing the above target groups to a greater risk of developing type 2 diabetes and complications from the disease.

We dare to treat citizens differently

In Copenhagen, we dare to treat citizens differently, depending on the individual citizen's specific situation and needs. Our programmes and offers must be open to all Copenhageners. However, our initiatives must be differentiated to ensure that we offer more help and support to citizens who have difficulty managing their own health and disease in their daily routines and less support to those who are able to cope on their own. The local authority wants to make sure that our citizens are involved in decisions concerning their health and disease and to support their ability to navigate the healthcare system.

“But of course you’re at risk, and to that I reply that diabetes is not the worst disease you can develop. It might even be the least serious, so no, it’s not something I really think about in my everyday life”.

*Quote from a 57-year-old
at risk of developing type 2 diabetes*

*Source:
Vulnerability Assessment in Copenhagen, 2015*

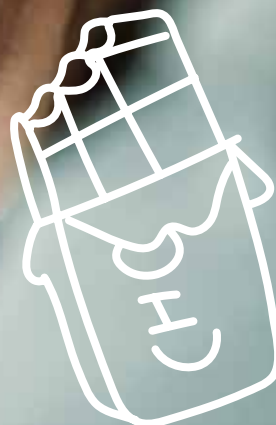
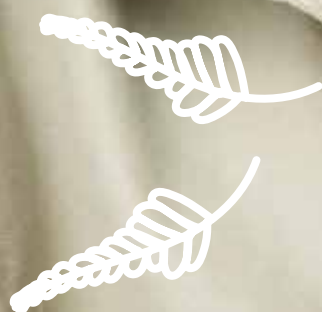
This is why the City of Copenhagen wants to:

- roll out preventive measures, for instance in residential areas, in workplaces or in clubs/associations with a high proportion of citizens at risk of developing chronic diseases such as type 2 diabetes;
- strengthen early action in relation to mapping out citizens at risk of developing type 2 diabetes, including, in particular, men aged 45-plus, ethnic minorities and citizens not in employment;
- develop concepts for differentiated initiatives aimed at different target groups with type 2 diabetes, based on the individual target groups’ needs, circumstances and skills;
- establish a navigator scheme in partnership with the Danish Diabetes Association to ensure that less resourceful citizens diagnosed with type 2 diabetes receive support for learning the necessary skills to perform self-care and benefit from the services and offers available to citizens with diabetes; and
- contribute to ensuring that all citizens with type 2 diabetes encounter appropriate control of the disease, preventing the onset of complications.









CENTRE FOR DIABETES

– THE FRAMEWORK OF A COHESIVE TYPE 2 DIABETES STRATEGY

Today, Copenhageners diagnosed with type 2 diabetes have to go to several locations to receive the specialised treatment necessary to avoid the onset of further complications from the disease. This means that a citizen will typically have to consult his or her own general practitioner for blood glucose testing, participate in a dietitian's plan at the local-authority health centre, go to a podiatrist's clinic for an examination of foot sensitivity and prevention of foot ulcers, to an ophthalmologist to have the retina screened for bloodshots, and to the hospital to submit to testing for liver and kidney injuries.

Multiple skills under one roof

In Copenhagen, we therefore want to establish a Centre for Diabetes where multiple professional skills are available under one roof. At the initial stage, these skills will be provided by nurses, dieticians and physiotherapists. In the longer term, the ambition is to engage in cooperation with other health professionals, for instance podiatrists, psychologists and ophthalmologists, and with hospitals on outreach functions such as eye screening. That will facilitate navigation through the healthcare system as the citizen can be examined by two or more specialists in the same day. Moreover, health professionals will be given an opportunity to offer more cohesive plans and programmes of higher quality, resulting in improved rehabilitation and treatment. In this fashion, the risk of developing complications later on is minimised.

The goal is to establish a house where all Copenhageners with type 2 diabetes and their relatives feel welcome and want to be. The physical environment has to be positive and health-stimulating. The house will feature modern and inspiring kitchen facilities where people can learn how to make healthy and tasty food in collaboration with the dieticians in the house and a professional chef. The Centre for Diabetes must accommodate user-friendly training facilities, providing opportunities to exercise both indoors and outdoors.

Other facilities will include inviting conversation rooms for patient education sessions and individual programmes, as well as a cafe to stimulate networking and relationship building.

The Centre for Diabetes should open up to civil society and form a close partnership with the Danish Diabetes Association, which will also open a branch in the house. The advisory and counselling functions of the Danish Diabetes Association will therefore be an integral part of the house. It is essential that the citizens' resources are brought into play and permeate all activities undertaken in the house to ensure that the citizens' resources make up the pivotal element and driving force of the Centre.

Citizens at risk and particularly vulnerable

When the measures and activities targeted at type 2 diabetes in Copenhagen are concentrated in the Centre for Diabetes, it is important to incorporate the possibility of local measures ensuring the detection of risk groups, combined with measures aimed at special target groups who do not necessarily visit the Centre of their own accord. This work must be carried out in close interaction with volunteers and other local players in disadvantaged residential areas.

Citizens diagnosed with type 2 diabetes and their relatives must be strengthened through targeted patient education. The purpose of patient education is to ensure that citizens with type 2 diabetes acquire the right skills that help them deal with their diagnosis and cope with daily life. Copenhagen has already come a long way, but we have to focus increased attention on how we reach different target groups with services and offers that are better targeted at their specific needs. This applies to, for instance, men, ethnic minorities and mentally ill people, who we have difficulty recruiting with the services and offers available today. By concentrating services and offers for citizens with type 2 diabetes in the Centre for Diabetes, we achieve

a sufficient patient volume and more skills and competencies among the employees, which make it easier to develop and test differentiated patient education programmes for these target groups. At the same time, we need to make sure that the citizens participate throughout the rehabilitation process to reduce the number of drop-outs and support the newly acquired knowledge with follow-up initiatives, for instance by participating in local motivation groups and by offering help and support from volunteers who are familiar with diabetes in their own lives.

Cooperation with general practitioners is important

Cooperation with general practitioners must be strengthened still further to ensure that citizens with type 2 diabetes are assigned to the best treatment from the start. When a citizen is diagnosed with type 2 diabetes, it is essential that the citizen is encouraged to undergo treatment and rehabilitation straight away. All GPs in Copenhagen therefore need to know about the Centre for Diabetes and inform citizens with newly diagnosed type 2 diabetes of the possibility of entering a rehabilitation programme at the Centre for Diabetes.

“I’m well aware of what’s healthy and what’s unhealthy, and I know what I should do. But from my perspective, there’s a wide gap between knowledge and action.”

50-year-old woman

Source:

Vulnerability Assessment in Copenhagen, 2015

The Centre for Diabetes will strive to ensure successful cooperation and distinct interfaces to other diabetes initiatives and partners. This applies, for instance, in relation to general practitioners and the Capital Region of Denmark, including hospitals and the new Steno Diabetes Centre Copenhagen, pharmacies, private businesses and industry and trade organisations.

The Centre for Diabetes will therefore invite key diabetes players to engage in close cooperation with a view to achieving optimum synergies in the field.

Besides the more physical implications from type 2 diabetes, diabetes also carries a heavy psychosocial burden and has a negative impact on many aspects of life, such as emotional wellbeing, finances, leisure time, working life as well as relations with family and friends. It is therefore important to take action to ensure that diabetes interferes with the lives of citizens as little as possible. In the longer term, the Centre must have social skills and maybe psychologists at its disposal to care for the needs of the many citizens who are struggling with completely different problems in day-to-day life – problems that take up more of their attention than their diabetes. The Centre for Diabetes will also, in partnership with research institutions, be a beacon in the development and testing of new models for treatment and support to citizens with diabetes where the psychosocial aspects are in play.

This is why the City of Copenhagen wants to:

- establish the Centre for Diabetes where multiple professional skills are available under one roof, for instance podiatrists, eye-screening facilities as well as social and psychological counselling, in cooperation with the Danish Diabetes Association, hospitals and Steno Diabetes Centre Copenhagen;
- establish the Centre for Diabetes in a positive and health-stimulating physical framework, which provides the starting point for networking and relationship building for citizens and their relatives;
- enter into a partnership with the Danish Diabetes Association on psychosocial counselling for citizens and on measures to support the citizens in maintaining their newly acquired habits;
- commit to more binding cooperation with general practitioners and across the City of Copenhagen's administrative bodies to ensure that all citizens newly diagnosed with type 2 diabetes are informed of the Centre's services and offers;
- strengthen cooperation with hospitals on outreach teams, quality development and mutual advice and support;
- focus on early detection, for instance in relation to mothers who have developed gestational diabetes and their children. This must be undertaken in close collaboration with the hospitals; and
- engage in closer cooperation with pharmacies, which will for instance imply that information about the Centre's services and offers is part of the conversation with the chronic sufferer.





NEW INNOVATIVE SOLUTIONS

The substantial increase in the number of Copenhageners who, over the coming years, will be living with type 2 diabetes calls for new, innovative solutions. Solutions we create in collaboration with businesses, institutions of research and higher education, interest groups and others. Together we find the solutions that provide the best quality of life for the individual, a larger market for businesses as well as differentiated services and offers in Copenhagen.

Freedom and self-reliance play a significant role in the lives of Copenhageners, regardless of age, gender, disease, etc. Good health gives Copenhageners the freedom to live the lives of their choice. For Copenhageners who are at risk of developing type 2 diabetes or have been diagnosed with diabetes, one of the crucial elements is to make changes in everyday life with the focus on their own health and wellbeing. However, that presents a huge challenge to many people. We must therefore develop new solutions that help Copenhageners make healthy choices and give Copenhageners with type 2 diabetes the chance to be self-reliant while ensuring the rehabilitation and treatment they need.

Copenhageners' needs must come into play

These solutions support exercise and healthy eating habits in the activities of daily living, for instance by making it possible for the individual to train at home, maybe combined with online support from a therapist. The solutions also enable Copenhageners with type 2 diabetes to monitor their state of health continuously and act on the basis of that knowledge.

The first step on the path is centred on the importance of understanding Copenhageners and their daily life. It makes perfect sense to engage in close dialogue with the Copenhageners who frequent the Centre for Diabetes so that their needs and requirements come into play, both in regard to developing the local-authority services and offers and in regard to finding new solutions in the market.

Copenhageners with type 2 diabetes and their relatives may also consult the Welfare Clinic to talk about

The City of Copenhagen, in partnership with Bispebjerg Hospital, has carried out a telemedicine study for citizens diagnosed with type 2 diabetes. In the study, citizens received a computer and measuring equipment, measured their blood glucose level, blood pressure and weight and transmitted the information to a nurse in the local authority. The study has given citizens improved self-care performance, and nurses have gained more insight into the citizens' daily life, providing a better opportunity for nurses to help and guide the citizens.

their ideas and day-to-day challenges. The Welfare Clinic is the gateway to the City of Copenhagen for everyone who wants to come up with good ideas, challenges or proposals for innovative welfare-technology solutions in the health and ageing policy area. We test ideas and solutions in practice and make sure that the ideas and solutions that work well are implemented in real life.

Solutions in cooperation with businesses

We collaborate broadly to develop new solutions, but we will also find new ways of doing things through strategic partnerships.

We invite businesses to take part in solving the challenges in the field of diabetes. This may be businesses supplying technical devices that make it easier to monitor the intake of carbohydrates, insulin quantities and blood glucose levels in everyday life. It is also businesses that want to contribute to innovative thinking in the prevention and treatment of type 2 diabetes and to finding solutions for the future.

Businesses launch new products to the market on an ongoing basis. We have a finger on the pulse and keep up to date on the new possibilities brought by products in the pipeline that can make a difference for Copenhageners with type 2 diabetes and their relatives.

Inspiration – strategic partnership: Philips cooperates with the New Karolinska University Hospital in Stockholm. They have entered into a 20-year partnership agreement based on a call for tenders specifying the functional requirements, in which Philips buys, installs and services all imaging diagnostics equipment for the new hospital and trains the employees in how to use the equipment. The parties also drive innovation through a joint effort, which implies, among other things, that Philips is going to establish and hire staff for an R&D centre in connection with the hospital construction project. The cooperation also aims at ensuring that new and more effective treatment forms gain access to the market more quickly and, therefore, benefit a far larger number of patients.

*Source:
denoffentlige.dk, 22 October 2014*

The international agenda also plays a role in the development of new innovative solutions. The City of Copenhagen participates in an international partnership called Cities Changing Diabetes together with Novo Nordisk, Steno Diabetes Centre, the University of Copenhagen, the Danish Diabetes Association and seven other big cities – Mexico City, Shanghai, Tianjin, Houston, Johannesburg and Vancouver. Together, we look at the challenges of type 2 diabetes in big cities and exchange our experience, for instance to spot new solutions.

“Next big thing” – products in the pipeline:

In the near future, new products will pave the way for a better life with diabetes. Google and Alcon have joined forces to develop a contact lens capable of measuring glucose in tears. A team at Stanford University is working on a chip that measures auto-antibodies in the blood and, as a result, is able to differentiate between types of diabetes.

*Kilde:
Forecast Diabetes Magazine, marts 2015*

We must involve research institutions

Moreover, we must seize the opportunity to generate evidence-based knowledge and involve institutions of research and higher education to qualify our diabetes strategy. In some areas, we lack knowledge about what works, for instance in relation to reducing social inequality in the prevalence and impact of diabetes and to understanding how psychosocial factors affect the daily life of citizens with diabetes. We are therefore focusing on our cooperation with institutions of research and higher education on the development and application of new knowledge on type 2 diabetes. We will also cooperate on educational programmes for students and supplementary training courses for employees who work with the prevention and treatment of type 2 diabetes.

This is why the City of Copenhagen wants to:

- focus on collecting and systematising knowledge on Copenhageners with type 2 diabetes, including a knowledge centre function within the Centre for Diabetes;
- encourage Copenhageners with type 2 diabetes, their relatives, employees, businesses, etc. to come up with good ideas or proposals for solutions in the field of diabetes through the Welfare Clinic (velfaerds klinikken.kk.dk);
- find new innovative solutions, for instance health applications and welfare-technology solutions, for the prevention, treatment and rehabilitation of type 2 diabetes;
- establish strategic partnerships with businesses and other players on developing innovative solutions for the future in the field of type 2 diabetes; and
- give priority to cooperation with institutions of research and higher education with a focus on the development and application of new knowledge on type 2 diabetes.



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