

## NIPH's research strategy for 2017-2020

The NIPH – the National Institute of Public Health – provides knowledge with the aim of creating the best possible conditions for the Danish people to live a healthy and pleasant life. This is partly through research in health and disease at the highest international level and partly through public services which provide a crucial foundation with the latest knowledge for political decision-making processes.

Through monitoring and research, the NIPH generates indispensable knowledge, partly on the health condition and diseases of the Danish people - and how these can be improved for the individual - and partly on what structural measures in society create the best conditions for the health and quality of life of the population. This knowledge is a prerequisite for improvement and change. If we do not know what works, we cannot set goals, prioritise and create the changes we want.

We want our knowledge to create public health. In our strategy for 2017-2020, we have therefore selected the seven focus areas that we know are crucial for public health.

It is an arduous and ambitious task to improve public health, and we cannot achieve this goal either alone or through our close cooperation with the political system. More needs to be done. Therefore, in the coming years, the NIPH will enter into several new strategic partnerships with a number of public and private actors that, together with us, want to contribute to improving the health and quality of life of the Danish people. We need partners that translate our knowledge into practice and test new interventions. Only when that happens will we create real change.

### **Seven strategies for improving the health of the Danish people**

The NIPH's strategy for 2017-2020 concentrates on seven focus areas that are each crucial for improving public health.

#### **Interventions**

We are the only institute in Denmark that has a centre for intervention research within the field of public health science. We have 10 years of experience with intervention research and embrace a broad range of methods and topics. We have sound knowledge of the risk factors that challenge public health. However, we need more knowledge about how we can most effectively transform this knowledge into practice through successful interventions that specifically improve the health and living conditions of the Danish people, as well as knowledge about how to sustain the viability of the projects when they end. We will generate this knowledge in the years to come.

#### *Our goals*

- We will take part in the development of theory and methods for the purpose of designing effective interventions and evaluating these using the most appropriate research design.
- We will carry out research into what measures are effective, for whom and under what conditions.
- We will carry out research into how best to implement measures in a given context by involving relevant stakeholders and target groups in the development of these measures.
- We will ensure that research results are applied in practice, amongst other things by establishing strategic partnerships with relevant actors.
- We will ensure that the measures that are effective continue in practice once they are fully developed.

## **Health inequalities**

Despite our welfare state, there are marked inequalities in health that do not need to exist. For example, the most disadvantaged live on average ten years less than those with the best financial and educational situation. We also see that preventive interventions most often have the greatest effect among those with the best financial and educational situation. The NIPH has experience in research in health inequalities, using academic, subject-based and method-based approaches. And in the coming years, we will continue to work on developing effective prevention efforts that will benefit the most disadvantaged. This is done to ensure more equality and balance in relation to health.

### *Our goals*

- We will contribute to a better theoretical understanding of inequality in health in order to better understand the underlying mechanisms.
- We will develop preventive efforts that help reduce inequality in health.
- We will carry out research into the significance of structural changes in society for inequality in health.
- We will contribute to the development of new and better measurement methods of inequality in health.

## **Alcohol**

The NIPH is a leader in alcohol research in Denmark, and there is a need for our knowledge.

Alcohol is the third largest risk for morbidity and mortality. In total, 20 per cent of the adult population consumes alcohol to a harmful level, and in Europe, Denmark has the largest share of young people who have been drunk in the past year. High alcohol consumption is not only harmful to the individual, but also to the family and society as a whole. Only 10 per cent of those addicted to alcohol receive publicly funded alcohol treatment, and alcohol plays a major role in social inequality in health. Research into *binge drinking* in young people, heavy drinking in adults and how we get more alcohol addicts into treatment earlier will continue to be the main elements of our activities in this area.

### *Our goals*

- We will monitor the alcohol consumption of the Danish people.
- We will carry out research into the harmful effects and social consequences of alcohol.
- We will develop methods for early detection.
- We will develop measures for prevention.
- We will develop treatment for alcohol problems.

## **Smoking**

Smoking is undisputedly the greatest single risk factor for public health. Each year, 13,600 people die due to tobacco, and 58,000 life-years are lost among men and 38,000 among women due to smoking. Over the last five years there has been a stagnation in the proportion of adult smokers (17 per cent smoking daily), and the most recent figures show that the proportion of young smokers is increasing. Our calculations show that there are 40 young people starting to smoke every day. Therefore, we must continue researching into how to prevent young people, but also the rest of the population, from smoking.

### *Our goals*

- We will carry out research into how to limit social inequalities in smoking.
- We will carry out research into how social and structural factors play a role in both young people starting to smoke and smoking cessation in general in the population
- We will carry out research into how prevention strategies and other health promotion initiatives work differently across different target groups.
- We will monitor the tobacco market and new tobacco products, such as e-cigarettes.

## **Chronic disease**

Danes are living longer and longer, and more and more people are suffering from chronic disease. Today, 35 per cent of all Danes over the age of 16 suffer from at least one chronic disease, defined as a disease lasting six months or longer. Among the elderly over 75 years of age, one in every five has at least three chronic diseases, also called multiple diseases. The NIPH has extensive experience in investigating risk factors for and consequences of chronic disease in both children and adults. This work is continuing but we are also creating knowledge about how chronic disease and multiple diseases are experienced and handled. Knowledge of the consequences of chronic disease and health promotion among chronic sufferers is important both for the quality of life of the individual and for the political desire that more people suffering from chronic disease remain in the labour market, in schools and in youth education, and that the major burden of disease should increasingly be handled outside the hospital setting.

### *Our goals*

- We will uncover the mechanisms and risk factors that lead to multiple diseases and the factors that affect the course of illness.
- We will uncover how patients experience chronic disease or multiple diseases and how they deal with it both in daily life and in terms of their experience with the health service.
- We will be a natural cooperation partner for regions and municipalities with regard to the chronically ill.

## **Mental health**

Within the last 20 years there has been increased strain on the mental health of children and adolescents. At the same time, we have gained knowledge about the importance of mental health for health behaviour, illness and everyday functioning. We know that stress, anxiety and depression annually send thousands of Danes out of the education system and the labour market with serious consequences for the economy and quality of life. Mental health is a prerequisite for living a good life and a protective factor for the development and management of disease, social inequality in health and risky health behaviour. Therefore, more knowledge is needed about the positive aspects of mental health and how we protect and promote mental health.

### *Our goals*

- We will be a leader in measurements and interventions in mental health.
- We will carry out research into efforts aimed at promoting wellbeing in large population groups.
- We will carry out research into causal factors and interventions that prevent mental health problems aimed at risk factors and risk groups.

## **Physical activity**

Sedentary behaviour and physical inactivity are, after smoking, the most significant risk factor for public health. Physical inactivity contributes to approximately 6,000 deaths a year, reducing the average life expectancy of Danes by 13 months, and is responsible for approximately 60,000 additional somatic hospital admissions every year. Therefore, there is still a need for new basic research in the area as well as monitoring developments.

### *Our goals*

- We will focus on the broad public health angle and the connection between physical activity and health.
- We will carry out research into the whole spectrum, from actual physical activity, general movement, sedentary behaviour to inactivity.
- We will develop and carry out intervention studies based on the institute's epidemiological tradition, register data, KRAM data and our large population surveys.

## **The NIPH's efforts to create public health are based on four core competences:**

**Research, advice, education and communication.**

### **World-class research**

The NIPH has the ambition that our research should be world-class. We will help to address the major public health challenges facing the Western world. Therefore, we strive to create research that cannot be ignored and which has international impact. This means that we strive to create scientific breakthroughs as well as the best conditions for our researchers so that we can invest and provide space for the research areas that are of major relevance to public health and which also have the potential to reach new heights in public health research.

### **Research-based advice**

Advisory and evaluation tasks for external parties are an important part of our work as a national public health institute and a significant contribution to the NIPH's knowledge creating public health.

The scope and topics of the assignments in public health science therefore cover a wide field. We prioritise advisory tasks based on the following three criteria:

- *Relevance* – The task must be interesting from a public health scientific perspective and fit into the NIPH's research strategy.
- *Quality* – It must be possible to solve the task with high academic quality.
- *Independence* – The NIPH must have methodological freedom, transparency of all results, ownership of data and publication rights.

### **Dedicated education**

Education and dissemination through courses is an essential part of the institute's dissemination of knowledge. The NIPH is jointly responsible for the Bachelor's programme in Public Health at SDU, and we hold a number of PhD courses, as well as supervising bachelor, master's and PhD students. We see it as an important task to communicate our subjects and knowledge to the next generation of public health professionals, and therefore our ambition is to carry out the education tasks with the greatest possible dedication and commitment so that we inspire, capture and maintain the students' interest.

Our ambition is to extend the NIPH's contribution to the Faculty of Health Sciences education activities, both in the master's and the PhD programs, but also in the field of competence development, courses and further education activities, aimed at our practice partners. We want to create education in closer proximity with our researchers and a study environment closer to our research.

### **Agenda-setting communication**

The NIPH's communication is an important contribution to our knowledge creating public health. Our communication will highlight our research, especially the seven focus areas, and strengthen our position as the leading basic research institute in public health. We strive to create debate and encourage our stakeholders to involve themselves in our knowledge and focus areas. At the same time, we will set the agenda both nationally among decision makers, health actors, in nationwide media and internationally in the highest-ranking journals.