Facts on Danish adults’ dietary and physical activity habits during the first national COVID-19 lockdown in the spring of 2020

In the efforts to prevent spread of the COVID-19, Denmark implemented several restrictions in the spring of 2020. One of these restrictions included a national lockdown in March 2020, with the introduction of online education and closure of workspaces, which meant that many Danes either had to work from home or were sent home without work. This significantly changed everyday life and affected our eating and physical activity habits. The National Food Institute has collected data in March and April 2020 during the first wave of COVID-19 among 1,346 Danes aged 18-65¹ to shed a light on the effect of the lockdown on adult Danes’ dietary and physical activity habits.

¹ Results for 1,226 study participants are included in the fact sheet as 120 participants were omitted due to invalid dietary data

This is why the Danish Corona Dietary Survey is unique:

- The whole diet is assessed for a large group of adult Danes.
- From the survey it was possible to estimate adult Danes’ intake of all foods as well as energy and nutrients during the lockdown. Other studies typically focus on either food groups such as fruits and vegetables and/or they ask for self-assessed changes in dietary habits, which only assess participants own reflection of their dietary habits not the actual eating patterns.
- Data on physical activity as well as screen time were also collected

The study makes it possible to investigate both dietary and physical activity habits among adult Danes during the first COVID-19 wave and lockdown in the spring 2020.
Diet

The content of sweets is much higher in the Danish Corona Dietary Survey than what has been found in previous surveys (figure 1). Adult Danes also assess that they have eaten more food (23% of all adults), sweets (21%) and cake (14%) during the lockdown. Sales data substantiate that the sale of sweets has been higher during the lockdown than before the lockdown.

There are large differences in the dietary quality between those who have eaten the least healthy and the healthiest diets during the lockdown (figure 2). The differences between the groups are also significant for physical activity and screen time. People who have eaten the least healthy, have spent around 2 hours less per week on moderate and vigorous physical activity and 1 hour more daily in front of the TV and the computer screen.

Figure 1. The content of sweets (g/10 MJ) in the diet among 18-65-year-old Danes in the Danish Corona Dietary Survey 2020 and the Danish National Survey of Diet and Physical Activity 2011-2013 (DANSDA 2011-2013)

Figure 2. Difference in the dietary content of selected foods and drinks for those who have eaten the least healthy diet compared to those who have eaten the healthiest diets during the lockdown
Physical activity
The study suggests that there has been a decrease in time spent in moderate and vigorous physical activity during the lockdown, while there has been a significant increase in screen time. 21% of the participants corresponding to 750,000 adult Danes have had a sedentary leisure time during the lockdown. As such, in their leisure time they have both been physically inactive and have had more than six hours daily screen time. That is approximately a four to fivefold increase compared to results from previous surveys (figure 3). 46% of the participants assess that they have been less active during the lockdown, 38% that their physical activity level has remained unchanged, while 16% assess that they have been more active than before the lockdown.

Work situation
According to participants’ own assessment, dietary and physical activity habits have been less healthy among those working from home or sent home without work. Those outside the labour market or whose working situation remained the same have only experienced smaller changes. Work situation has been shown to be a significant factor for the physical activity habits of Danes during the lockdown, but less significant for the dietary habits of adult Danes.

Risk factors for unhealthy dietary and physical activity habits during the lockdown
Being a single parent with children under 16 years of age, being outside the labour market and having a low household income have been associated with a high risk of unhealthy dietary and physical activity habits during the lockdown.

Conclusion
The results show less healthy dietary and physical activity habits for adult Danes during the first lockdown in the spring of 2020 when compared to the time before lockdown. The content of sweets and sweetened drinks in the diet were higher in the Danish Corona Dietary Survey 2020 than what has been found in previous studies. Adult Danes also assess that they have eaten more sweets and been less physically active during the lockdown. Sales data on sweets and sweetened drinks also points towards a higher consumption during the lockdown. One in five adult Danes have had a sedentary leisure time during the lockdown, which is also significantly higher than what has been found in previous studies. Adults with a lower level of education and low household incomes have had the unhealthiest dietary and physical activity habits.