



# Cooking for improved health

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*This masters' thesis is carried out as a part of the education at the University of Agder and is therefore approved as a part of this education. However, this does not imply that the University answers for the methods that are used or the conclusions that are drawn.*

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## **Acknowledgement**

This year and a half has been filled with ups and downs. The best thing that happened was the birth of my baby girl Sofia. She was delivered 1 day before my original submission in May. One of the downs was when I had to decide that I had to postpone the submission of my master thesis. I had never postponed anything before and I felt like I was letting myself down. Now when the submission is here, a half year later than I originally had planned, I could not have been more proud of myself. I want to thank my little family, my husband and my daughter for being patient, supporting and understanding so that I could write the thesis and submit it.

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I am really passionate about public health, especially the topic sedentary behavior and physical activity. The project CIHI seemed different from other diets and activity interventions. I decided quit early in the first conversation with the advisors that CIHI seemed too exciting, to let this chance slip by me. This project gave me an opportunity to learn more about the topics physical activity and sedentary behavior, but also how we construct and conduct an intervention based study. When I selected my aims, it was based on my interests but also the method I had to choose to support my aim. In my bachelor thesis, I used a qualitative method, so I wanted to challenge myself this time by using the quantitative method. This method was absolutely not the method I mastered best at this point.

To strengthen up my thesis, I had to incorporate another project, at first it seemed like a big challenge and difficult to incorporate into my thesis, but at the end it was both interesting and challenging to work with two different projects

Another reason I had for choosing these aims for my thesis was because there have been no one else who has studied the correlations between cooking their own food and if this will increase physical activity or decrease sedentary behavior. The last reason made it really interesting, but it also gave me a bigger challenge.

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## Summary

**Background/Aims:** The fourth largest risk factor for non-communicable diseases and mortality is physical inactivity. Non-exercise activities, often light in intensity, are frequently grouped with sedentary behavior. This may be an unmistakable activity, and it involves energy expenditure. Thus, we wanted to examine if a daily activity like cooking food could reduce time spent in sedentariness or increase time being physical active. The specific aim of the present study was to determine; (1) *to what extent do a cooking intervention led to increased physical activity, or reduced sedentary time, and (2) is there an association between degree of cooking and physical activity levels, or sedentary time, in a method study.*

**Method:** Cooking for Improved Health Intervention (CIHI), 15 participants completed an intervention (there were no control group) and baseline and post intervention measurements. They had to wear a Physical Activity monitor (PA monitor) for four days both previous and after the intervention. The PA monitor measured steps per day, sleep per day and hours spent in light, moderate and vigorous intensity. A paired sample T-test was preformed to check the significant between baseline and post measurements from the PA monitor. In the method study, Healthy and Sustainable Lifestyle (HSL), 75 participants completed a questionnaire, and worn a PA monitor for four days. The PA monitor data were divided into two groups “ little” cooking (cooked for >0-500 minutes a week) and “considerable” cooking (cooked for >500 minutes a week) and were then run up against sleep, light, moderate and vigorous intensity with a One-Way ANOVA test.

**Results:** In CIHI there were no significant increase in physical activity or reduced sedentary time. In HSL there were no significant association between degree of cooking and physical activity level, or sedentary time.

**Conclusion:** We observed no significant associations between cooking and physical activity level or reduced sedentary time, neither in the intervention (CIHI) or the method (HSL) studies. The researcher is uncertain why there were no significant discoveries.

Key words: Cooking, intervention, sedentary time, physical activity level

## Sammendrag

**Bakgrunn/Problemstilling:** Den fjerde største risikofaktoren av ikke-smittsomme sykdommer og dødelighet er inaktivitet. Aktivitet som ikke betegnes som trening, ofte lett fysisk aktivitet, er ofte gruppert sammen med stillesitting, dette mener noen er feil, fordi lett fysisk aktivitet krever energi. Derfor ønsket vi å undersøke om en hverdagsaktivitet, som matlaging, kunne øke tiden man er fysisk aktiv eller redusere tiden man bruker på stillesitting.

Problemstillingene er; (1) I hvilken grad kan en matlagingsintervensjon føre til økt fysisk aktivitet eller redusere stillesitting, og (2) kan man se en assosiasjon mellom tiden man bruker på matlaging og fysisk aktivitet, eller stillesitting fra en metodestudie.

**Metode:** I matlaging for bedre helse intervensjonen var det 15 deltakere som fullførte intervensjonen (det var ingen kontroll gruppe) og målinger før og etter intervensjonen (høyde, vekt, kroppsmasse-index og livvidde). I tillegg måtte deltakerene gå med en aktivitetsmåler i fire dager både før og etter intervensjonen. Aktivitetsmåleren målte antall skritt per døgn, søvn per døgn, lett, moderat og hard aktivitetsnivå i timer per døgn. En paired sample T-test ble utført for å undersøke om det var noen signifikans mellom dataen før og etter intervensjonen.

I en metodestudie, Health and Sustainable Lifestyle (HSL), fullførte 75 deltakere en spørreundersøkelse, og gikk med en aktivitetsmåler i fire dager. Data fra aktivitetsmåleren ble brukt til å dele inn deltakeren i to grupper “little” matlaging (lagde mat >0-500 min) og “considerable” cooking (lagde mat >500 min), deretter ble det gjennomført en One-Way-ANOVA test mellom de to gruppene og søvn, lett, moderat, hard intensitet for å se om det var noen signifikans mellom gruppene og fysisk aktivitet og stillesitting.

**Resultat:** I matlaging for bedre helse intervensjonen ble det ikke observert noen signifikans i økt fysisk aktivitet eller redusert stillesitting. I Healthy and Sustainable Lifestyle studien, viste ingen significant assosiasjon mellom tiden man bruker på matlaging og fysisk aktivitet, eller stillesitting.

**Konklusjon:** Vi observerte ingen signifikante assosiasjoner mellom matlaging og fysisk aktivitet eller redusert stillesitting i intervensjonsstudien (CIHI) eller metodestudien (HSL).

Stikkord: Matlaging, intervensjon, Stillesitting, Fysisk aktivitet

## ABBREVIATIONS

PA: Physical activity

SB: Sedentary behavior

WHO: World's health organization

BMI: Body mass index

METs: The Metabolic Equivalent of Task

NEPA: Non-exercise physical activity

MVPA: Moderate –to-vigorous intensity physical activity

CVD: Cardiovascular disease

LTPA: Leisure time physical activity

RCT: Randomized controlled study

NSD: Norwegian Data Inspectorate

REK: Regional ethical committee

CIHI: Cooking for Improved Health Intervention

HSL: Healthy and Sustainable Lifestyle

LIPA: Light Physical Activity

## Table of contents

<b>1.0 Introduction and aims of the studies.....</b>	<b>1</b>
1.1 Introduction.....	1
1.2 Aims of the studies.....	2
<b>2.0 Theoretical grounding.....</b>	<b>3</b>
2.1 Public health.....	3
2.2 Overweight and obesity.....	4
2.3 Physical activities.....	5
2.3.1 What is physical activity.....	5
2.3.2 Physical activity and health.....	7
2.3.3 None-exercise-physical activity.....	8
2.4 Sedentary time.....	10
2.5 Measures of Physical activity and sedentary time.....	15
2.5.1 Questionnaire.....	15
2.5.2 Pedometer.....	15
2.5.3 Physical activity monitor.....	15
2.6 Cooking.....	16
<b>3.0 Method.....</b>	<b>20</b>
3.1 Study: The Cooking for Improved Health Intervention.....	20
3.1.1 Design.....	20
3.1.2 Recruitment/ Study sample.....	21
3.1.3 Procedures/measurements.....	23
3.1.4 Intervention.....	23
3.2 Study 2: Healthy and Sustainable Lifestyle.....	24
3.2.1 Design.....	24
3.2.2 Recruitment/ Study sample.....	25
3.2.3 Procedures/Measures.....	25
3.3 Physical activity monitor in study 1 and study 2.....	26
3.4 Statistical analyses.....	27
<b>4.0 Results.....</b>	<b>29</b>
4.1 Study 1.....	29
4.2 Study 2.....	30
<b>5.0 Discussion.....</b>	<b>33</b>
5.1 Discussion of results.....	33

<b>5.2 Discussion of method.....</b>	<b>37</b>
5.2.1 Design.....	37
5.2.2 Recruitment/Study sample.....	40
5.2.3 Procedures/Measurements.....	42
5.2.4 Validity and reliability.....	44
<b>5.3 Ethics.....</b>	<b>45</b>
<b>6.0 Conclusion.....</b>	<b>46</b>

**Reference**

**Attachements**

- 1: Approval the Norwegian Data Inspectorate Cooking for Improved Health Intervention
- 2: Information about the Cooking for Improved Health Intervention and Consent Cooking for Improved Health Intervention
- 3: Questionnaire Cooking for Improved Health Intervention
- 4: Recipe booklet Cooking for Improved Health Intervention
- 5: Approval the Norwegian Data Inspectorate Healthy and Sustainable Lifestyle
- 6: Request form to the kindergartens and parents Healthy and Sustainable Lifestyle
- 7: Consent Healthy and Sustainable Lifestyle
- 8: Questionnaire Healthy and Sustainable Lifestyle



## 1.0 Introduction and aim of the studies

### 1.1 Introduction

*“All parts of the body which have a function, if used in moderation, and exercised in labors in which each is accustomed, become thereby healthy, well developed, and age more slowly. But if unused they become liable to disease, defective in growth and age quickly.”* Hippocrates ca. 450 B.C

The western society has changed and is still changing. We no longer harvest our food, using several days preparing a meal, cooking for a whole day or sitting at the family table eating patiently. Today, we hardly shop groceries to cook food; cooking dinner is by opening a prepared meal from a box. We then heat it up in the microwave and eat the food in front of the TV [1, 2]. In the past, preparing a meal was nearly a job and they had work hard and use a lot of energy to put together a meal [3]. Now, we are sitting much more, and we are making fewer and fewer of our own meals, this may lead to bad diets and several sedentary hours. If you think about it, when you are making, for example, a stew, you have to shop the ingredients (hopefully are you walking around at the store and carrying your grocery bags yourself). When you get home, you have to prepare the meal, which includes cutting up meats or fish, and peeling the vegetables. Then you have to watch your oven, stir in your pan until the meal is ready to be served. Making this dinner may keep your body moving and standing for a prolonged period of time, if you do not sit while cooking. Cooking your own dinner from scratch, preparing and cooking it, will lead your body to be in some kind of motion, at least standing. Thus, it will decrease your sedentary time and may increase the physical activity level [4].

One of the biggest health problems our world is facing today is obesity, high sedentary time and low physical activity level [5]. In the *Cooking for Improved Health Intervention (CIHI)*, we wanted people to cook their own dinner from scratch and bake their own bread and use some of their leisure time on cooking to increase the level of physical activity and decrease their daily sedentary time. Our hypothesis was that the time you use, cooking dinner and baking bread, will lead to healthier diets, and increase levels of moderate intensity physical activity as well as reduce sedentary time (e.g. TV watching). The idea behind the intervention is that cooking is a daily home activity that people use less time on now than they did before. Therefore, we wanted to see if we could increase the activity level with the specific daily

activity, cooking, and if this daily activity could reduce time the participants were inactive, or if it would increase the time spent on light intensity, moderate to vigorous intensity physical activity (MVPA).

In addition to data from the project CIHI, the present study also includes data from the project *Healthy and Sustainable Lifestyle* (HSL).

## **1.2 The aim of the studies**

The specific aim of the present study was to determine; *to what extent has the Cooking for Improved Health Intervention led to increased physical activity, or reduced sedentary time.*

The second aim of the present study was to investigate: *if there was an association between degree of cooking and physical activity levels, or sedentary time, in a method study.*

## **2.0 Theoretical grounding**

### **2.1 Public health challenges**

George Rosen stated in the 1950s “To understand the present, we must view it in the light of the past from which it has emerged and of the future which it is bringing forth” [6]. Rosen [6] emphasized that we have to look closely into the past for advancement, and how the past could create the future. He thought that the past was relevant, it informs the present and future, and help find new ideas and new scientific discoveries [6].

The contemporary health challenge are not only communicable diseases, the contemporary health challenge are now also lifestyle diseases. This is a significant challenge for both our society [7] and for individuals [8]. The World Health Organization’s (WHO) health promotion effort emphasizes the need for effective governance with regard to the social determinants of health and the principle of Health in all policies as key strategies for building a healthier world [9-11]. In Norway the public health work is influenced strongly by WHO’s health promotion tradition [12]. The Norwegian population has in general good health [7]. Through the last hundred years, the nation has had a significant improvement in health; the population lives longer and mortality are reduced through out the whole population [7]. Development of the laws, regulations, hygiene, knowledge and enlightenment has had a major impact on today’s current health condition among the population [7]. Step by step projects and reforms have contributed to this development. Changes have happened through development of universal welfare, public school system for all the children and youth, better homes, water and sanitation, vaccines, a good public health service and an evolution in our work that safeguards the employees rights, health, safety and environment [7].

From 1945 up to the mid 1980, heart and coronary diseases (CVD) had increased in prevalence in Norway, other European countries and the USA. Even though the epidemic has decreased since the mid 1980, CVD is still one of the most frequent causes of death in Norway [13]. Type 2 Diabetes has had an enormous prevalence in countries that consume western foods. This disease is a large health issue in the world, and increases along with the prevalence of obesity.

## 2.2 Overweight and obesity

Since the 1980's, prevalence of obesity has nearly doubled worldwide. In 2014, more than 1.9 billion adults, 18 years or older, were overweight. Of these, over 600 million were obese [5]. These numbers seem to escalate and the world may face a serious health issue. People may discuss that there are two main causes of why people develop overweight. The first cause may be the increased intake of energy-dense foods that are high in fat [5]. The other cause may be a reduction in physical activity level and an increased sedentary nature of many forms of changed methods of transportation, increasing urbanization and work form [5]. Obesity has become an epidemic and extends to the whole world, and now also includes developing countries [3]. An example from Raa [3] is in Bangladesh, where half of the country's health budget goes to treat diseases linked to obesity [3]. The expansion in bodyweight is so large that some believe that we are facing a global epidemic with huge societal consequences [14]. WHO, [5] classifies BMI  $\geq 25$  as overweight and BMI  $\geq 30$  as obesity [5]. Estimated 13 % of the world's adult population has a BMI  $\geq 30$ . According to WHO [5] chronic diseases and obesity are the most important health problems of the world.

In Norway, the knowledge about weight development is deficient. The statistics in the HUNT study shows that approximately 17 % of the women and 20 % of the men at the age of 40 to 45 are obese. If we include the numbers from 2000 to 2008 of overweight, almost half of the Norwegian population between 40 and 45 years old had a BMI over 25. The HUNT study shows, in the same period that of people over 20 years old, two out of three were overweight or obese. Obesity is one of the top priorities for the Norwegian government to enhance [7]. In 2013 the HUNT researchers published an article [15] where they had compared data from the three research periods they had on BMI and waist circumference. The time period went from 1984-1986, 1995-1997 and 2006-2008. The study showed that obesity is increasing in this relatively representative adult Norwegian population. The researchers had a particular concern because of the increase in young adults. The BMI-defined increase in obesity was larger in men than in women. The abdominal obesity increase was present and greater in all sex and age groups, but the increase was larger in women than in men in almost all of the age groups [15].

According to The World Health Organization [16] overweight and obesity is a result of excessive fat accumulation and a positive energy balance over time; this is caused by changes

in lifestyle behaviors. These behaviors are a combination of increased general sedentary time, decreased physical activity level and increased intake of energy-dense and poor nutrient beverages and foods [5, 16].

A decrease in physical activity and increase in sedentary time may result from use of computers, watching television, playing video games and using the Internet [4]. While this is not representative for all regions, countries and populations, it is increasingly spreading. Stressful daily life that contains elevator use instead of stairs and driving instead of walking are all making physical efforts redundant and may cause overweight [4].

### **2.3 Physical activities**

Physical activities are defined as “bodily movement that is produced by skeletal muscle that results in energy expenditure” [17]. This term therefore includes human movement, in full range, from exercise and competitive sport to hobbies or activities involved in daily living [18]. Physical activity is a multi-dimensional and complex behaviour, many different modes of PA contribute to the total amount of PA such as; leisure-time (e.g. dancing or swimming), transport (e.g. cycling or walking to work) and occupational and household (e.g. domestic cleaning and caregiving) [18].

According to a research on the Norwegian living conditions from 1997 to 2007, Vaage [19] analyzed that 8 % of people between 16 to 79 years were physically active in 2007. People who reported to be active less than every month were also 8 %. Combined, 16% reported to be physically active every month or less [19]. 42% of the people reported in the same research to be working out three times per week or more, and 18 % was reporting to be working out daily. The trends from 1997 to 2007 are positive, more people reported to be more active than earlier. Vaage [19] analyzed that kids or young adults are more active if their parents have a good income or a higher education [19]. In the same research, Vaage [19] analyzed that in the latest years more people use a form of fitness center to work out. In 2001, 21% used a fitness center, in 2004 25 % reported to use a facility like this and in 2007 31% reported to use a gym. Women, young adults and people with higher education and income reported using the fitness center the most [19]. Unfortunately, people with short-term health issues responded to use a fitness center to a smaller extent [19].

### 2.3.1 What is physical activity

Physical activity affects the total energy expenditure, which is the sum of the basal metabolic rate (also known as energy expended while at rest in a neutrally temperature environment and in a state of fasting), the thermic effect of food, and the energy expended in physical activity [20].

Ainsworth and colleagues [21] have organized all types of activities to classify and estimate the energy cost of PA. Activities such as rest, self-care, leisure, recreation, occupation, and daily living are scored in METs in a compendium. One MET is  $VO_2 = 3.5 \text{ ml/kg/min}$  (also known as basal metabolic rate). The score for sedentary behavior is 1.0 – 1.5 METs, light intensity reaches from 1.6-2.9 activities in this category are for example home activities like cleaning and sweeping in a slow pace. Moderate intensity level is from 3.0-5.9. Activities in this category are for example crab fishing, unpacking miscellaneous boxes, walking or running with children. Other examples of moderate activities are fishing (4.0 METs), cleaning the house or cabin in general (3.5 METs), painting (4.5 METs), taking care of children while kneeling or sitting (3.0 METs). When the met value is over 6.0, the activity levels are considered as vigorous [22]. Vigorous activities are e.g. roofing (6.0 METs), moving households upstairs (7.0 METs), dancing (6.0 METs), sparring in boxing (9.0 METs) and shoveling snow by hand (6.0 METs).

There are mentioned many different home activities in the compendium, for example, carpet sweeping that was scored at 2.5 METs, washing dishes were at 2.3 METs. There are also mentioned some METs score on baking and cooking, including food preparation and cooking done while standing or sitting, serving food, cooking or preparing food while walking and putting away groceries. All of these had a MET score of 2.5 [23]. Standing and shopping was classified as 2.0 Mets, and shopping while walking was scored at 2.3. If you had been to the super market and shopped food and then had to carry the groceries upstairs in your home the MET score would have been 8.0. Another home activities that are worth mentioning are moving furniture, which has a MET score of 6.0 and scrubbing floor are at a score of 5.5 [21].

### 2.3.2 Physical activity and health

The American college of sports medicine recommends that most adults should engage in moderate intensity physical activity for 30 minutes a day, 5 times a week for a total of 150 minutes a week. If the level of PA are vigorous intensity training for more than 20 min a day, 3 times a week or more than 75 minutes per week is enough according to the recommendations [38]. The Norwegian recommendation is 150 minutes a week with low to moderate activity or 75 minutes a week with vigorous intensity activity [39].

Physiologists and Epidemiologists have for the past half century validated the perceptions of the early scholars by demonstrating that persons who perform vigorous or moderate physical activity, on a continual basis, manifest an excess of physiologic experience and benefits, reduced risk of premature death and chronic sickness [37].

Salomon et, al. [24] studied physical activity and its effect and the association between television viewing and overweight in 3392 adults from Australia [24]. Physical activities, spent in their leisure time, walking vigorously and moderately, habits on television viewing, and body mass index were gauged through self-reports. The activity levels were measured at low, moderate and high physical activity level. Those who watched television for more than 4 hours per day were twice as expected to be overweight as those who presented oneself as watching television less than 1 hour a day, regardless of their level of physical activities. In spite of only measure one sedentary activity, and that the consequence correlation was tested on total leisure-time, the writers deduced that to reduce the commonness of obesity, overweight, and avert increase in weight, it is important to increase involvement in physical activities in purpose, but also decrease sedentary time [24].

Light physical activity is alone associated with 2 hours plasma glucose according to Healy and his co-authors [25]. The connection between time spent in light, moderate-to-vigorous activity levels and sedentary time and glucose metabolism were examined in women and men in the AusDiab study [25]. The activity levels were measured with an accelerometer and they had to wear the device for 7 days. The glucose metabolism was tested with an oral glucose tolerance test. In the analysis they included waist circumference. Both light and moderate-to-vigorous activity levels were negatively associated with 2 hours plasma glucose levels. Sedentary time and waist circumference had a positive association with plasma 2 hours

glucose.

### **2.3.3 Non-exercise-physical activity**

Non-exercise-physical activity (NEPA), are daily activities, of daily living, other than exercise per se, and surround such things as fidgeting, sitting and standing [26]. Non-exercise activities result in energy expenditure of a higher level beyond the supine resting metabolic rate [26]. Physical activity level, light in intensity, is frequently grouped with sedentary behavior but is in fact an unmistakable activity and it involves expenditure of energy of 1.6-2.9 METs. Light physical activities include activities such as washing dishes, slow walking, writing, sitting and cooking food [27].

In a study done by Ekblom-Bak and her colleagues [28], a representative sample of 60-year-old Swedish women revealed that a generally active daily life, regardless of habits connected to exercise, reduced the risk of a first time cardiovascular disease with 27 % and all-cause mortality with 30%, in comparison to low daily activity, during a 12.5-year follow-up [28]. At baseline, none-exercise physical activity (NEPA) and exercise habits were assessed from a self-administrated questionnaire and cardiovascular health was established through physical examinations and laboratory tests. The baseline measurements showed that the association with metabolic syndrome was significantly lower for those with higher NEPA and the regularly exercising group. High NEPA was also associated with a more preferable profile of waist circumference, HDL and triglycerides in sexes and fibrinogen, insulin and glucose in men. Ekblom-Bak et al. [28] concludes in their study that regular exercise has a major impact on health these results have high clinical relevance. Their findings are important particularly for elderly adults, because this age group tends to spend a greater portion of their daily life performing NEPA as they find it difficult to achieve exercise recommendations. The shift towards an older population, it is important not only for the individual wellbeing but also for the global and national burden of disease. For future health, it is important to promote everyday NEPA, and it is probably as important as recommending regular exercise for older adults [28].

To promote regular physical activity, most interventions that are evidence-based have used in-person instructional formats delivered in community or clinical settings. Notwithstanding, an explosion of applications for mobile devices has targeted health behaviors and physical



activity, but there are few applications that are based on theoretical and empirical evidence [29]. Television and other screen activities have often been associated with, or been a reason why people score high at sedentary behavior [4, 27, 30, 31]. A study done by King et al. [29] showed that using mobile devices are a promising channel to support and guide people to improve their daily health behavior, the participants significantly improved their regular moderate-to-vigorous-physical activity (MVPA) and decreased leisure-time sitting during a 8-week-behavior-adoption period.

Finni et al. [32] studied how NEPA and sedentary time varied within days that contained intentional exercise. They measured this with an electromyography activity in the hamstrings and quadriceps muscle and saw that days involving intentional exercise did not significantly alter the time distribution between NEPA and sedentary pursuits, compared to a day without intentional exercise [32].

Along with the technological revolution of recent decades, time spent in NEPA and time spent sitting in favor of the latter, has resulted in a higher amount of sitting through out the general population [33]. A study done on the traditional agricultural group Old Order Amish, showed that men and women took on average three times as many steps per day as compared to other American adults. The Old Oder Amish has a lifestyle that maintains a high level of daily movements, resulting in a lot of steps through out the day [34].

In the Nurse's Health Study cohort [31] the researchers looked at sedentary behaviors including television watching in relation to the risk of type 2 Diabetes Mellitus and obesity in 50277 women. They investigated the longitudinal relationship between light intensity activities, different kinds of sedentary behaviors and the risk of type 2 diabetes and obesity while incorporate exercise activities in their leisure-time [31]. The participants were self-reporting their activities from vigorous, light and sedentary intensity. The researchers draw the conclusion that, exercise levels that were independent, sedentary behaviors, mostly regarding television viewing, had a correlation and were statistically significant to frequent risk of diabetes type 2 and obesity. Whereas the association was significantly lower with moderate and light activity [31].

To date, there are few studies that have measured sedentary behavior among youth and adults, and the effect of very low activity levels, in relations to health according to Pate and the

colleagues [36]. The possible benefits of light activity are not easy to see, because in most studies, inactivity and light activity have been combined in a low level or sedentary category [36].

## **2.4 Sedentary time**

Sedentary behaviors are referred to as: “activities that do not increase energy expenditure substantially above the resting level and include activities such as sleeping, sitting, lying down, watching television and other forms of screen-based entertainment” [27]. Sedentary behaviors originating from the Latin word *sedere* who means “to sit”, include sitting in the work place, the domestic environment, during leisure time and when we commuting [23]. Dishman et al. [40] stated as early as in 1996 that sedentariness is a burden to the American public health, and can account for 200 000 deaths annually. Diseases connected to sedentary behaviors including; colon cancer, coronary heart diseases and non-insulin-dependent-diabetes [40, 41].

The fourth largest risk factor for non-communicable diseases and mortality is physical inactivity [42]. The worldwide prevalence of non-communicable diseases, including cancer, cardiovascular disease and diabetes, is increasing. WHO estimates that these diseases will account for 63% of global deaths [42], and approximately 25% of the world’s population are sedentary [43]. These are combined evidence from 76 countries [43]. Thus, one of the leading targets in the prevention of non-communicable diseases is to enhance physical activity in both volume and intensity [44].

The term “sedentary” is often used as a synonym for lack of moderate-to-vigorous physical activity This is incorrect, according to Ekblom-Bak and her colleagues [45], as performing to little MVPA and being sedentary are distinct concepts with independent relationships towards health indicators. It is important to provide a frame reference to distinguish the concept “too little physical activity” from “ sedentary”, too much time spent sedentary are related to many negative health outcomes, therefore it is important to have guidelines for physical activity [46].

Recent evidence, has suggested, to affect sedentary behavior, there are a need for restrict time sitting to decrease healthy consequence that may occur [46-49]. The social, economic and

physical environments in which modern people move or sit within their day, has been rapidly changing according to Owen et al [4]. The change in communication, workplace, transportation and domestic – entertainment and technologies – has been associated with reduced physical activity [4]. In general, physical activity may be contemplated as any daily living activity that leads the body to expenditure energy, under and over the levels for retain basal metabolic activities: the threshold is usually 1.5 over the resting metabolic rate [50].

Explained in energy expenditure, sedentary behavior includes activities that involve a level of 1.0-1.5 metabolic equivalent unites (MET) [27]. Sedentary behaviors such as computer use, TV viewing or sitting in an automobile are typically in the energy-expenditure range of 1.0 to 1.5 METs (multiples of the basal metabolic rate)[23]. In this perspective, light intensity activity behavior are those done while standing, but that require expenditure of no more than 2.9 METS [4]. Thus, sedentary behaviors are those levels that involve sitting and energy expenditure that are low. In contrast, swimming, bicycling, running or waking are moderate-to-vigorous physical activities and may be done in a variety of body positions, these require an energy expenditure of 3 to 8 METs [23]. Research on health and physical activity has concentrated largely on quantifying the amount of time spent in levels of energy expenditure of 3 METs or more, sedentary behavior characterizing those with no participation at this level [27]. Thus, this definition neglects the substantial contribution that intensity from 1.9 to 2.9 METs make to overall daily energy expenditure, the potential health benefits of participating in these light-intensity activities, rather than sitting [4].

Because of muscle engagement in the lower body, standing may not have the same negative outcome as sitting, although standing is in the lower end of energy expenditure (1.2 METs) [23]. Engaging in physical activity, like for example pedaling on a bicycle, can be considered distinct from quiet sitting [51]. Owen et al. [51] refer to sedentary behavior as sitting and not being otherwise active. They also mean that these boundaries need a further definition and whether moderate movement with the arms, swinging of the legs, fidgeting can be sufficient to enhance consequences of sitting.

The common human behavior today, spend too much time on computer use, TV viewing, playing electronic games and sitting in automobiles [4]. This involves prolonged periods of metabolic energy expenditure low in levels. Sedentary behavior is a unique set of behaviors, with unique environmental determinants and a range of potentially unique health

consequences and not only simply the absence of moderate-to-vigorous physical activity [55]. Low physical activity or sedentary behaviours are linked to adverse health outcomes [56]. The distinct role of sedentary behavior may influence obesity and other metabolic precursors of chronic diseases that are major (type 2 diabetes, cardiovascular disease, and breast and colon cancer) [4]. The health promotion especially on obesity, sedentary behaviour is an important target to hit [56]. The health promotion needs to find a way to increase the levels of moderate to vigorous physical activities for people so that the overweight problems can be reduced [56].

There have been findings that breaking up sedentary time reduces the risk of postprandial plasma glucose concentration in contrast to prolonged time sitting in young adults [35]. The breaks should be every 20 minutes and should contain a 2-minute light intensity activity like walking [35]. Nevertheless, Bailey et al. [35] also found that breaking up sedentary time should be with a light physical activity that caused your body to move not just by standing. Therefore Bailey et al. suggested that physical activity interventions should aim to include a movement-based intervention with a light activity level. In addition objective physical activity measures should differentiate between breaks in sedentary time aimed to walking and standing to raise validity of epidemiological studies [35].

According to Owen and his colleagues [4] adults spend most of their waking hours either *sitting*, or in activities with *light intensity* (predominantly standing with some gentle ambulation) [4]. The economic, social environment and physical activity has changed the routine, which modern humans move or sit through out most of the day. On a daily basis the lives changed rapidly, and particularly in the middle of the last century. The changes that comprised workplace, transportation, domestic-entertainment technologies and communications, have significantly reduced physical activity and increased sedentary behavior. Sedentary behaviors (like TV viewing, workplace sitting, time spent in cars and computer and game-console use) have had a new focus for researchers on health and physical activities the last years [4].

From a study done by Healy et al. [25] objective data from an accelerometer, in which physical activity was measured, showed that on average, adults were sedentary more than half of their hours awake. The adult only spent 4-5 % of the day in moderate to vigorous intensity (MVPA) and the residue in light physical intensity (LIPA). If time spent on sedentary

behavior decreases, time spent on MVPA and LIPA will clearly increase. While health and the metabolic upshot of shifts in sedentary time comparative to MVPA and LIPA are currently unfamiliar, new evidence is now suggesting that these challenge needs to be tackled [52].

Individuals can be adequately active based on the recommended physical activity guidelines, but at the same time they spend too much time being inactive. Many people use the majority of their days engaging in sedentary behavior. This phenomenon has been called the active couch potato [4, 53, 54]. Sedentary behavior has proven to have many negative health outcomes, like cardio vascular diseases, obesity, diabetes and cholesterol, [53]. Healy and his colleagues [47] concluded that sedentary behavior is associated with high with blood glucose and that light-intensity physical activity is advantageously. To reduce these risks researchers have concluded that light intensity physical activity can reduce these risks and in addition help may improve the markers of health and quality of life [35, 53]. There have been established thresholds between sedentary populations and active couch potatoes [4, 53]. Yet, the active couch potato becomes adequately active to counteract the sedentary behavior effects. Therefore, there should have been made a maximum threshold of sedentary time to reduce health risks and especially cardio vascular diseases [53].

The key contributors to sedentary behavior today are screen activities, most commonly assessed as activities like using computers, watching television, playing electronic games and recent screen activities like smart phones and I-Pads [57]. Tremblay and the colleagues [49] summarize that there are a certain negative health outcomes associated with sedentary behavior, and behaviors like television, Internet and playing electronic games [55]. Pearson and Biddle [58] argue that electronic media infiltrates the lives of young people in all aspects. Electronic media may have a negative effect because of the too long periods sitting still, and unhealthy snack consumptions [58]. There are several studies that find correlation between TV viewing time and obesity risk among adults, both longitudinal and cross-sectional [30, 59] Decreased energy expenditure is a suggested reason for the relationship between TV viewing and adiposity risk [48].

There have been findings on the metabolic correlates of extended TV time [47, 60]. Recent objective – measurement studies have conducted that breaking up sedentary behavior can be beneficial to a persons metabolic system [47, 60]. The reduced sitting time has shown in

Australia, United States and Canada that sedentary behaviors can cause premature mortality [4]. However, people can meet public-health guidelines on physical activity, but if they spend too much time sitting for prolonged periods of time, they compromise their metabolic health [53]. This is a challenging and new field for science in the exercise area, population-health research and behavioral science [4]. Thus, many scientific questions remain to be answered before it can be concluded that too much sitting causes this problem. Or if what has been observed so far can be accounted for by too little vigorous, moderate and/or light activity [4]. Physiologically, there are observed distinct effects of too little physical activity and prolonged sedentary time [46].

Rather than measuring sedentary behavior, or a level of low physical activity, exercise studies traditionally focus on physical activities performed on a rather high intensity. There are therefore little research on the direct link between health outcomes and sedentary behavior [36]. Both people and animals have been studied when it comes to exercise treatments for improved health. Normally they use vigorous intensity and prolonged duration as a regular treatment and influence on health outcomes. However such studies cannot support and conclude to what extent sedentary behavior or inactivity have on health outcomes when they only measure regular exercise and not inactivity [36]. There are important exceptions to these regular exercise studies; these studies have measured bed rest and weightlessness. These studies have certainly imposed sedentary behaviour on subjects, demonstrated convincingly that absolute inactivity produces dramatic reductions in a persons health status and function. However, such treatments are clearly extreme and do not mimic a persons free living, who opt to engage in only light and sedentary behaviours [36].

Thus, definite light intensity physical activities (LIPA) (for example standing) can evoke similar MET values [23]. Similar to the measurements of physical activity (type, intensity, frequency and time) Tremblay et al. [49] proposed that sedentary behavior should be measured by sedentary frequency, duration of each sedentary behavior, type of sedentary behavior and interruptions in sedentary behavior. It is important to register these measures since sedentary behavior appears to be an essential determinant of the health status.

Sedentary behavior is rapidly expanding, with the body as the literature surrounding; cardio metabolic effects of sedentary time are recognizable from moderate to vigorous physical activity [53]. Consequently, people can be adequately physically active and follow the physical activity guidelines, but through out the day their time being inactive and have a

sedentary lifestyle over runs the adequate physical levels [53]. Objective measures of sedentary behavior and physical activity is still a new abstraction and Ryan et al. [53] concludes that there is a need for more studies that especially objective measure sedentary time and physical activities. The researchers wanted to differentiate lying/sitting from standing and differentiate little physical activity from standing [53].

## **2.5 Measures of physical activity and sedentary time.**

### **2.5.1 Questionnaire**

Questionnaires are often used when the researchers know in advance exactly what they need to know and can frame the appropriate questions to obtain the needed information [61]. Questionnaires are less costly and are advantageous for larger and geographically dispersed samples. Electronic questionnaires are especially economical and are increasingly important for gathering self-reported data [61].

### **2.5.2 Pedometer**

Walking is the most commonly encouraged behavior among all types of physical activities [62]. Therefore are pedometers a great device to capture walking behaviors [63]. The device is generally designed to detect ambulatory activity, but according to Siegel and his colleagues this is a “good thing” [63]. The pedometer is often used when leisure time physical activity is reported [64], and is functional to capture daily activities such as walking the dog, shopping and transportations [65]. The device estimates steps in a simple manner. It is straightforward and uncomplicated, and it is an indicator of movement. Traditionally, pedometers detects steps with a horizontal spring-suspended lever arm which moves up and down as a result of an acceleration vertically on the hip [62].

### **2.5.3 Physical activity monitor**

Physical activity monitors (PA monitor) have been developed to objectively measure sedentary time and physical activity. This has opened up new possibilities for studying health effects of all intensity levels of activity. PA monitors are frequently used to assess both physical activity and sedentary time [27, 66]. The device is small and lightweight, and often worn on the hip or upper arm. It measures body movement, or more precisely, acceleration in

one or more planes. The acceleration of the body is directly on the muscle that is related to its motion, often called energy expenditure [67, 68]. Most PA monitors accommodate a microprocessor and piezoelectric transducer that fabricate electrical signals that corresponds to the forces that are applied during movement [69]. The electrical signals that have been formed by the data from the accelerometer, are being converted into counts per unit of time [70]. The device measures all body movements and can be used to estimate the combined physical activity and its intensity [71].

The total amount of acceleration, the monitor counts, is a unit of time. A low count number, per unit of time, designates low physical active or sedentary behavior if the number is very low. With a high number of units the accelerometer designates high activity level [72]. The counts accelerometers do are summed and stored and is called an “epoch” [70]. When we examine physical activity and sedentary time in adults, we usually expressed this as 60-second epochs [72]. The data that the accelerometer output provides are almost dimensionless activity counts; these counts have no biological meaning them selves. In order to understand the counts, we have to convert these data into biological structures such as vigorous, moderate, light and sedentary intensity [73]. The PA monitor count explicate by using intensity thresholds, or cut-points, these are established from studies that are empirical and are the relationship between energy expenditure and activity counts for each type of accelerometer [73]. These cut-points can then determine which intensity they engaged in, weather it was vigorous, moderate, light or sedentary [74].

In a systematic literature review on physical activity, variables derived from body-worn sensors during long term monitoring in healthy and in-care older adults, Taraldsen et al. [75] discovered that the most common recording period for an PA monitor was one week (56 studies). The length of the recording period they examined stretched from two days to 450 days [75].

## **2.6 Cooking**

Food preparation at home is a behavior that is very complex. It entails a sequence of steps from planning what to eat, obtaining food, preparing the meal and eventually serving and eating the food [76]. According to several sources, home-prepared food is generally healthier than food obtained outside the home. [77-80] People who prepare food at home are likely to



eat a healthier diet compared to people who eat meals prepared outside their homes, also known as fast food [81]. A myriad of strategies towards obesity is to avoid processed and fast foods, as well as to ensure access to fresh foods [82]. Intervention to prevent obesity is increasingly moving towards healthy eating, thereby planning meals, obtain ingredients and prepare food at home [83, 84].

In the 1960s, the family then did the bulk of food preparations. People ate and made their own food at home. Since then there has been a revolution in how we prepare our food and who performs the job [1]. We are now more and more heading into mass production, like the revolution in manufactured mass that happened centuries ago. Innovations in technology like vacuum packing, improved preservations, artificial flavors, deep freezing and microwaves, have enable food manufactures to ship the food for rapid consumptions and to cook food centrally [1]. Married woman who did not work spent about two hours a day cooking and cleaning up from a meal in 1965. 30 years later, in 1995, the same task was made in less than 30 minutes. The switch from home cooking to mass production has lowered the time spent in the kitchen, and the cost increased, and the variety and the quantity of food consumed [1].

Time spent in the kitchen, cooking dinner, in the USA has declined almost 40% from 1965 to 1995 [85]. Timesaving machines such as microwave and ovens have allowed for a greater efficiency, we are still decreasing cooking [85]. Even though the literature indicates that regular family meals lead to healthier diets and lower BMI in both adults and children, cooking has declined [86-90]. Efforts to illuminate the relationship between BMI and food preparation have had mixed results. African American teenagers from low-income families showed in a study that increased frequency of prepared food made at their home, was alone associated with a higher BMI. Though teenagers from families that prepared meals and used healthy cooking methods had a lower BMI [91].

In another study, the scientists examine the relationship between time-use choices and BMI, they found that increasing time on preparing their food was associated with lower BMI for adult women [92]. Some studies have assumed that eating a home cooked meal together gives a better nutritional value then those who eat alone and a not home cooked meal. This study did not examine associations between frequency of family meals and nutritional intake, they just assumed that this is a significant factor [93]. There are many people who appreciate the mealtime with the family and it gives the family time to hear about things that are happening

in their lives. Many people also say that mealtime are not important and that they usually eat in front of the television [94-95]. There are obstacles for some people to eat healthy at home. The first one is the food available in the house, other obstacles are family rules towards food, attitudes, lack of healthy options like fruit and vegetables, bad cooking preparations and use of fat in the cooking process [93]. Another reason why people do not eat healthy at home is the increase in processed and fast foods [96]. Adolescents' food consumption behavior may be influenced by different factors, which may vary between females and males. Therefore, health professionals and nutritionists should tailor treatment and educational strategies according to both the gender of their patients and the desired specific dietary outcomes [94].

Less people are making their own dinners in the USA [81]. Food is perhaps one of the most mundane and taken for granted parts of our everyday life, yet the ways we think about shopping, cooking and eating are actually intensively reflexive [2]. In earlier studies, they have found that within families it is often women who are the responsible for shopping, choosing, preparing and cooking and that they privilege their spouses and children's preferences over their own desire [2]. Monteiro [97] states in his article that ultra-processed food is cheaper than food prepared in your own kitchen, the ultra-processed food is also available 24/7 and you can buy it in the store, at you school even near the toilet. Vending machines are placed everywhere, so why bother cooking yourself when you can buy food everywhere and even before you become hungry [97].

In a daily social activity, home cooking is an act of care for family members. Most of the home cooks are willing to learn about healthy eating and cooking. But to take their knowledge and make them cook healthy in real life is more difficult [98]. 8% of Americans reported never to cook dinner, 43% made dinner occasionally and 49% reported that they always cooked dinner at home [81]. There has been little research on current patterns of food preparations in USA and the factors that are affecting the complex behavior [81].

There have been changes over the years in cooking. The first one is that the food is being prepared differently over the last decades: time spent on cooking has had a downswing [99], and the knowledge and cooking skills have eroded [85]. Second, an important predictor of eating and healthy diet is home food preparation [77-79]. Third, the association between home food preparation and BMI is variable, complex and requires further study [91, 92].

In a Norwegian article from 1976, the author describes the Norwegian food production and diets from the year 1900 and earlier. Farmers had large fields for the animals like sheep, goat and cows. In addition, they produced meat and dairy products for themselves, for sale and for trade. Along the coast, they also got food from the ocean. The grain production on the farms was limited because of the natural conditions, and for some years they had to buy or trade grains [100]. Along the coast, in a county called Vest-Agder, old food lists showed that a typical breakfast was flatbread made of barley and oats with butter, cheese and coffee [101]. The other meals throughout the day varied, but mostly contained potatoes, pies, tubers, salty meats, and a special kind of sausage, different kinds of fish, cheese, porridge, and whole grains cooked in milk [101]. In the 1800's most of the citizens in England and also in Norway had physically demanding jobs, so they needed many calories through high fat and starchy foods. They probably needed 2-3 times more calories per day than today's sedentary people [3].

## **3.0 Method**

### **3.1 Study 1: The cooking for improved health intervention**

Cooking for improved health intervention viewed the possibility of whether the participants lost weight, waist centimetres, reduced their sedentary time or increased their physical activity level. The participants could experience benefits from these changes and might experience better health. The study was intended as a Randomized Controlled Trial (RCT) study, methods are described in details later.

In the CIHI project, we were three master students and two supervisors that planned and conducted the project. Two cooking teacher was also involved during the cooking courses. One of the students examined if the participants lost weight after the intervention and was responsible for contacting the potential participants and booking appointments for the measurements. The second student was responsible for developing (together with the supervisors) and analyse a food diary. In addition the student had the responsible for conducting a SurveyXact form. The SurveyXact form contained a consent form the participants had to answer to be included in the study. The diary was meant as a tool for the researcher to see if the participants cooked dinner and baked bread every day. The diary was given to the participants after the intervention. I was responsible for the PA monitor measurements and analysis of those measurements. In addition I was responsible for making the blog where the potential participants could read more about the project, the inclusion, and excursion criteria, and fill out the consent form.

#### **3.1.1 Design:**

All of those who signed up for the study, regardless of which group they would be drawn to, had to be measured baseline and post the intervention. Those who got drawn to be in the intervention group had to participant in a two night cooking class before the intervention started. The intervention lasted for 1 month; details from the intervention are described later. Initially, the study was intended as a RCT. Based on available resources and kitchen facilities a total sample of 120 participants was aimed for in the CIHI study, of which 60 randomly would be participating in the intervention and the remaining 60 as controls. The control group would not receive an intervention.

The inclusion criteria was: Overweight or obese adults (18 – 65 years) with BMI equal or more than 25 kg/m<sup>2</sup>. The exclusion criteria was based on medical history; subjects with heart or coronary diseases, kidney or liver diseases, psychiatric illnesses, systemic infections or endocrine diseases, history of malabsorption, subjects with any clinical condition that renders them unfit to participate, subjects on medication for hypertension and hypercholesterolemia, systolic blood pressure (SBP) > 160 mmHg and/or diastolic blood pressure (DBP) > 100 mmHg, and subjects on special diets (Low Carb High Fat, Very Low Calorie Diet or any other diet that influences weigh). We did not include people with bodyweight changes (- 3 kg) the last 2 months prior to the study, pregnant or lactating women. Due to no resources for screening the participants for these criteria, exclusion and inclusion were based on the participants' self-reported medical history.

Before the projects started, approval from the Norwegian Data Inspectorate (NSD) (attachment 1), were applied for. The participants should feel respected and not by any chances get exposed to any risks by participating in the study. Participation in the studies was voluntary and ethical principles were taken into account. Before the participants chose to be a part of the study, they received information about the project (attachment 2), and they then had to fill out the consent form (attachment 2). The participants could at any given time quit the project without any reasons and they participated without any forced use of incentives. Personal data and other information about the participants were connected to an ID number and stored in a password-protected computer. The study did not have any hidden agendas and there were no interest in conflict founded the study. In the CIHI project, the inclusion and exclusion criteria should ensure that the participants were healthy and that the only thing that could happen to the participants was loss of weight.

### **3.1.2 Recruitment/ Study sample:**

The recruitment occurred mainly through out the area of Kristiansand. Participants were recruited through social media such as Facebook, and an advertisement at the University, and an article in a local newspaper, "Kristiansands avis". We also called and emailed some of our regions biggest companies, such as National Oilwell Varco, Kristiansand Kommune, Sørlandets Sykehus. The participation was voluntary and the recruitment occurred from the end of September 2014 to the end of November 2014.

To participate in the study, the potential participants needed access to a computer. They had to use the link: <http://matlagingforbedrehelse.blogg.no/>, to participate in the study. On the webpage they could read about the whole project, the intervention and the inclusion criteria and exclusion criteria (attachment 2), and sign up for the project in our SurveyXact form. It also contained information that all of the personal data is anonymous, and that taking part in the study would not put the participants at any risks. The participants provided the written consent electronically (attachment 2), by signing up for the study in our SurveyXact form, found on the blog. The participants then received a questionnaire survey by e-mail (attachment 3).

When the participants had filled out the consent and questionnaire, the recruitment manager contacted the participants by telephone or email. One of the students asked them about the inclusion criteria and then booked the participants for measurements at Spicheren, a gym located near the University of Agder in Kristiansand. The participants got an email right after the first measurements and right after the intervention with some questions about their food and physical activity habits, it also contained demographic questions. All of the measurements and distribution of the PA monitor previous and post the intervention was done at Spicheren gym.

36 subjects announced their interest in our SurveyXact form. 31 of these were included, 5 subjects did not meet the inclusion criteria. There were 3 people who did not showed up for the first measurement; therefore we had 28 participants for our intervention. Therefore we could not randomize and all the participants were included in the intervention group. The participants in the study were men and women from 20-58 years old. Some worked, some were students and one was under rehabilitation. 13 out of 15 were of Norwegian ethnicity, only two had either a mom or dad from another country (table 1). Trough the questionnaire in SurveyXact we got the demographic information about all of the participants.

There were 20 subjects on the first course night and 21 participants on the second course night. 2 people showed only up on one of the two course nights we had. Some of them could not come because of private engagement and some unsubscribed the program after the first measurement.

Two of the participants did not want to wear the PA monitor for the second time, one of the persons said he or she had an allergic skin reaction to the device and the other one just did not want to use it again. From the 28 participants that started the intervention, 15 completed the whole study.

### **3.1.3 Procedures/Measurements**

The first step before the intervention was to measure the body-mass-index (BMI), height and waist circumference of the participants. BMI was measured on a normal digital weight (SECA 816), an altimeter was used to measure height (SECA 217) and waist circumference was measured by a tape measure (SECA 201). All three measurements were done twice with two of the project associate present. The waist circumference was measured on bare skin between the lower rib and iliac crest. After the measurements, the project associates could calculate the BMI for each participant's. The associates could then plot in the participant's height, weight and date of birth on each PA monitor and then hand out the device to the participants. SenseWear Armband (BodyMedia, Pittsburgh, Pennsylvania, USA) and SenseWear Armband Mini were used to measure time spent in sedentariness and physical activity levels. They were instructed on how to use the device and when they had to take it on and off. They also received an envelope so that they could send the PA monitor back as soon as they were finished wearing them. They were instructed to wear the device for 4 days and two of them were to be Saturday and Sunday. They also got an email from one of the other students with a questionnaire they had to fill out, including demographic information about the participants (table 1).

After the one-month intervention period the participants had to wear the accelerometer for 4 more days. They also had to be measured both weight and the waist circumference. In addition the food diaries were collected. The participants finished the project early in December 2014.

### **3.1.4 Intervention:**

The intervention was a two night cooking class, including:

- An introduction on the project, cooking and how to potentially integrate cooking in a busy life.

The first night we gathered all the participants in an auditorium at our University. In this location the supervisors held a presentation that lasted about an hour.

The next step of the intervention was:

- A practical two night cooking course.

The participants were divided in two groups because there were two kitchens with 4 stations in each kitchen. The participants were then divided into smaller groups of two and three at each station. Here, each of the stations got different kinds of recipes to make (attachment 4). At the end of each cooking day all the participants gathered and ate the food they all had been making. This way, all the participants could taste all the recipes. Some of the recipes, like boiling force and baking bread, were made the first cooking day and finished the second night of the cooking course. The bread recipe should be made the day before it went in the oven; it was a recipe with little yeast. The idea was that the participants sat the dough at night and finished it when they got home from work the next day. This way it should be easy for the participants to conduct this into their daily routine.

The main focus of the cooking course, was bread baking with long leavening, stock, slow cooking of meat, fish dishes and vegetable dishes. The dishes were inspired by the New Nordic Diet, however, the focus was on the cooking, not the specific foods used.

After a two night cooking course, the participants went home and started the intervention, and they were asked to cook dinner and make all the bread they ate for a length of one month. They went home with a cookbook “Mathjelpen for foreldre” for inspiration and a food diary. In the diary they were asked them to fill out what they ate, if they had made dinner for themselves and if they had baked the bread they had eaten. They had to fill out the diary every day throughout the whole intervention period. None of these data are used in this master thesis.

### **3.2 Study 2: Healthy and sustainable lifestyle**

#### **3.2.1 Design**

The data originates from the project Healthy and Sustainable Lifestyle, which in 2014 collected data in collaboration with the, cross sectional study, Child Food Courage project



[102]. As part of these projects, a web-based questionnaire was constructed to explore lifestyle behaviors, self-perceived health and quality of life among parents of toddlers, along with food and eating behaviors among their children. An application to NSD, the Norwegian Data Inspectorate, was applied for (attachment 5). The participants should feel respected and not by any chances get exposed to any risks by participating in the study. Participation in the studies was voluntary and ethical principles were taken into account.

### **3.2.2 Recruitment/Study sample**

A convenience sample, consisting of parents of toddlers born between 2008 and 2011, was recruited through kindergartens, for a methodological study. For each child, either the mother or the father could participate. Parents were informed about the purpose and implications of the study through a web-page, and via e-mail distribution (attachment 6). In total, 1191 parents from 19 kindergartens in the county of Vest-Agder, Southern Norway, were invited to participate. A total of 86 parents signed up. Parents provided written consent electronically (attachment 7), followed by administration of the questionnaire survey (attachment 8) by e-mail.

### **3.2.3 Procedures/Measures**

Measures to be included in this master thesis from HSL was: A questionnaire (attachment 8), measuring socio demographic variables (table 3), time spent cooking, food intake, sedentary behaviors, levels of physical activities, time constraints, stress, sleep (table 4). Questions about how much the participants were cooking and the demographic data were used in this master thesis. In addition, the participants had to wear a PA monitor for four valid days (a valid day was defined as 80%), and at least one weekend day was required to be included in the study.

HSL gathered information about the participants eating and eating habits, physical activity level and demographic variables through a structured questionnaire the participants had to answer (attachment 8). From the questionnaire in HSL, the two questions that were used in this master thesis were: “ On a regular day, approximately how much time do you spent cooking dinner (1)?” The alternative answers were originally categorized from 2-8, where 2 was cooking for 15-30 minutes, 3 was 30-60 minutes, 4 was 1 – 1 ½ hour, 5 was 1 ½ - 2 hours, 6 was 2-3 hours, 7 was more than 3 hours and 8 was less than 15 minutes. The answers

were recoded to alternatives from 1-7, and the categories were coded in minutes. Number 1 was conducted to 7,5 minutes, 2 was 22,5 minutes, 3 was 45 minutes, 4 was 75 minutes, 5 was 105 minutes, 6 was 150 minutes and 7 was 200 minutes. The question “On a regular Saturday and Sunday, approximately how much time do you spent cooking dinner (2)”, were originally labeled from 1-7 and had the same alternatives as the previous question above. Eventually these labels were combined into one variable (question 1 were multiply by 5, since there is 5 week days in a week and question 2 were multiplied by 2 since there are two weekend days in a week) with two categories, little and considerable cooking. Little cooking were those who cooked for > 0-500 minutes a week and those who cooked more than >500 minutes a week was placed under considerable cooking.

### **3.3 Physical activity monitor in study 1 and 2**

In the intervention study, CIHI, two kinds of PA monitors were used, SenseWear Armband Pro3 and SenseWear Armband mini (BodyMedia, Pittsburgh, Pennsylvania, USA). In the Healthy and Sustainable Lifestyle project physical activity was objectively recorded with the monitor SenseWear Armband Mini. The SenseWear Pro armband is a device with multiple sensors that collect data from a near-body temperature, a skin temperature sensor, a galvanic skin response sensor, heat flux and biaxial accelerometer. The Armband contains an accelerometer, a device that measures motion, the Armband also counts your steps, using the accelerometer to measure the distinct patterns created by walking and/or running. Intensity of physical activities is transformed from the signals from the device and together with information about the wearer’s height, age, weight and gender, energy expenditure is estimated. The SenseWear mini is a smaller and newer version of the SenseWear armband. The mini SenseWear operates in a similar manner as the Pro version, but this one includes a three-axis accelerometer rather than only two as the other one [103, 104].

The SenseWear Pro has to be worn on the right upper arm, on the biceps muscle. The SenseWear Armband Mini has to be worn on the left upper arm, on the triceps muscle. The participants were told to wear the PA monitor for four consecutive days, including two weekend days (one weekend day in study 2). The participants were instructed to wear the accelerometer for all awake and sleeping hours. They were instructed to only take it off when they had to shower, or were doing other activities that included water. Data was downloaded using SenseWear Professional V.8.1 (BodyMedia, Pittsburgh, Pennsylvania, USA). A valid

day was defined as wearing the armband 80% of the day, or 19,2 hours. These criteria were required for participants to be included in the analyses.

To understand and analyze the data from the PA monitor, the data had to be converted into meaningful physical activity outcomes. SenseWear had to translate the monitoring data into energy expenditure units (ie, METs or kilocalories) or different activity intensities. In this case METs. The result of the translation of the data is either in count thresholds that delineate particular activity intensity or predicts equations. In this approach, the advantage is that the PA monitor can convert the values into physical activity outcomes such as METs per hour (as we used in both projects), and how much time the wearer used on the different intensity levels, sedentary, light, moderate and vigorous [105-107].

The SenseWear Armband mini and Pro that we used in both projects conduct the data in METs. One MET is the same as the resting energy expenditure during sitting. These values represent rough calculations because factors of age, body composition and sex will affect the resting energy expenditure, and thus, verified MET values may be dissimilar [108]. The cut-points of sedentary, light, moderate and vigorous intensity are represented in METs. Sedentary reaches from 1.0- 1.5, light intensity reaches from 1.6-2.9, moderate from 3.0-5.9 and vigorous are classified over 6.0 [109]. PA monitor was used and worn for four full days, sedentary time and time spent in light, moderate and vigorous levels of physical activity was measured.

### **3.4 Statistical analyses**

Statistical analyses were performed with the statistical software package IBM SPSS Statistics version 21.0 (IBM Corp., Somers, New York, USA). The demographic data from the CIHI and HSL project are presented as numbers and percent (table 1 and 3). In table 2 and 4, the data are presented as mean values in both pre and post data with standard deviation; the table also shows 95 % confidence intervals (CI) and p-values. Statistically significant were considered as P-values > 0.05.

In CIHI the data: steps, sleep, sedentary, light, moderate and vigorous intensity level data were used from the PA monitor. To check the significance for change in all categories, a paired sample T-test was performed between the baselines and after measurements.

In HSL, the variable “little cooking versus considerable cooking” was run up against sleep, light, moderate and vigorous activity level. Explorer in descriptive statistics was used in order to show the descriptive data of the participants. To find out if there may have been significance in all the categories, One-Way ANOVA (one-way analysis of variance) test with the variables sleep, sedentary, light, moderate and vigorous intensity was completed.

## 4.0 Results

### 4.1 Study 1

The demographic data in table 1 shows that there were mainly women that participated, only 2 out of 15 men. The participants also consisted of most subjects who worked fulltime with a university degree of up to four years. Most of the participants were single and ethnical Norwegians. Only 2 subjects had a mother or father of another origin than Norwegian.

**Tabell 1.** Demographic value, of all the participants, that completed the study. The table describes the selection based on sex, main activity, education, relationship status and ethnicity.

	Categories	Numbers	%
Sex	Men	2	13 %
	Women	13	87 %
Main activity	Student	5	34 %
	Work full time	8	53 %
	Work part time	2	13 %
Education	Elementary school	1	7 %
	high school	5	34 %
	University up to 4 years	7	47 %
	University over 4 years	2	13 %
Relationship status	Singel	7	47 %
	Cohabitant	4	26 %
	Married	2	13 %
	Others	2	13 %
Ethnicity	Norwegian	13	87 %
	Mother/father of foreign origin	2	13 %

There were no significant difference between MVPA and sedentary time and cooking in the CIHI project (table 2). The participants walked 9027 steps before the intervention but after the intervention their steps were 8167 ( $p=0.22$ ). Nevertheless, we can see that time spent in the category sedentary was 18.0 hours at baseline measure and 17.6 hours post the intervention ( $p=0.24$ ). In the category light intensity you can see in table no.2 that the participants used 4.1 hours at baseline measure and 4,4 hours after the intervention ( $p=0.52$ ). In vigorous intensity, baseline measure was 0.1 hours and 0,1 hours post the intervention ( $p=0.70$ ). Moderate intensity went from 1.6 hours in baseline to 1.5 hours post the intervention ( $p=0.71$ ).

**Tabell 2** shows 95% CI and p-value in both baseline and post-intervention on the variables; steps, sedentary, light intensity, moderate intensity, vigorous intensity and sleep. All the values except steps are shown as hours per day. Steps are shown as amount per day.

	Mean baseline	Mean post-intervention	Change (95% CI)	p-value
Steps/ day	9027	8167	860 (-595-2315)	0,22
Sedentary time hours/ day (included sleep)	18.01	17.60	0,41 (-0,9-1,7)	0,52
Light intensity hours / day	4.13	4.36	-0,22 (-1,31-0,88)	0,70
Moderate intensity hours/ day	1.61	1.54	0,15 (-0,31-0,44)	0,71
Vigorous intensity hours /day	0.10	0.14	-0,15 (-0,54-0,69)	0,70
Sleep hours /day	7.04	6.96	0,15 (-0,54-0,69)	0,78

## 4.2 Study 2

In table 3, most of the participants in the HSL study were women; only 16 from a total of 75 were men. Only 5 reported to be born in another country than Norway, and 12 had one of the parent born in another country then Norway. Most of the participants were married, and the majority worked fulltime. Relative to education most of the participants had studied at a university for 4 years or less.

Tabell 3. Demographic value, of the participants, that completed the study. The table describes the selection based on sex, main activity, education, relationship status and ethnicity.

	Categories	Numbers	%
Sex	Men	13	17 %
	Women	62	83 %
Are you born in Norway	Yes	70	93 %
	No	5	7 %
Mother born in Norway?	Yes	71	95 %
	No	4	5 %
Father born in Norway?	Yes	67	89 %
	No	8	11 %
Relationship status	Singel	6	8 %
	Married	50	67 %
	Cohabitant	13	17 %
	Separated	2	3 %
	Divorced	2	3 %
	Others	1	2 %
Education	High school	7	9 %
	Univeristies up to 4 years	26	35 %
	Universities over 4 years	40	53 %
	Others	2	3 %
Main activity	Work full time	44	59 %
	Work part time	19	25 %
	Leave	5	7 %
	Rehabilitation	1	1 %
	Student/school	6	8 %

In the study health and sustainable study, there was no significant difference in MVPA between those cooking little versus considerable (table 4). The amount of steps the participants walked was 9402 steps in the category little cooking and in considerable cooking they walked 9305 ( $p=0.90$ ). The participants that cooked little used 4.39 hours in light intensity level, while those who were cooking considerably used 4.60 hours ( $p=0.51$ ). Moderate intensity went from cooking little for 2.65 hours and those who were considerable cooking used 2.67 hours in moderate intensity level ( $p=0.95$ ). The participants who consider themselves cooking little slept on average 6.72 hours while those who reported cooking considerably slept for an average of 6.6 hours ( $p=0.52$ ). The participants in general use little time in vigorous intensity and those who reported cooking considerably used less time in this intensity (0.14 hours) then those who cooked little (0.19 hours) ( $p=0.33$ ). Time spent in sedentary behaviour were 16.23 hours in those who cooked little and 16.18 hours on those who claimed they cooked considerably ( $p=0.90$ ).

Tabell 4 shows data from HSL on the values steps, sedentary, light intensity, moderate intensity, vigorous intensity and sleep associated with little or cooking considerably. Steps are showed as amount per day. Sedentary, light, moderate, vigorous and sleep are shown as hours per day.

	<b>Little cooking</b>	<b>Considerably cooking</b>	<b>p-value</b>
Steps /day	9402	9305	0.90
Sedentary time hours/ day (included sleep)	16.23	16.18	0.90
Light intensity hours/ day	4.39	4.60	0.51
moderate intensity hours/ day	2.65	2.67	0.95
Vigorous intensity hours/ day	0.19	0.14	0.33
Sleep hours/ day	6.72	6.60	0.52



## **5.0 Discussion**

In 1965, married women that did not work outside of their home spent about two hours a day cooking and cleaning up from a meal. 30 years later, in 1995, the same task was made in less than 30 minutes. The switch from home cooking to mass production has lowered the time spent in the kitchen, the price and increased variety and quantity of food consumed [1]. In addition to these food changes, changes in people's physical activity level and time spent in sedentary behavior has changes dramatically over the last years [4].

In today's society, people tend to use their body far less then they used to. The environment has been dramatically changed and these change do not benefit neither the individual [8] nor the society [110], rather the opposite. Our change in lifestyle challenges the health, and we are no longer apprehensive of communicable diseases, we are facing diseases connected to our way of living [8, 110].

Obesity and physical activities, and especially sedentary behaviours, are problems that both individuals and the environment have to suspend of. In study 1 (CIHI), we wanted to examine whether people increased their physical activity level, or reduced their sedentary behaviour level, after the intervention. In study 2 (HSL), we wanted to examine self-reported time cooking, and the association between physical activity nor sedentary behavior. There were no significant associations between cooking and increased PA nor a reduction in sedentary time in study 1. Physical activity level and degree of cooking did not have a significance association in study 2 either.

### **5.1 Discussion of results**

To my knowledge, CIHI is the first study to examine the association between sedentary time and physical activity and cooking, or, that time spent cooking will lead to a higher level of light intensity, MVPA or decrease sedentary time. There are neither studies on parents nor other groups and the association between degree of cooking and their light PA, MVPA or sedentary time.

Because there were no statistically significance in study 1 and 2, we can neither draw the conclusion nor say that there is a correlation between cooking and increased PA level or

reduction in sedentary time, or between cooking little/considerable and physical activity levels or sedentary time.

Food preparation at home is a behavior that is very complex. It entails a sequence of steps from planning what to eat, obtaining the food, preparing the meal and eventually serving and eating the food [76]. This means that people have to use their bodies when they cook at home instead of sitting and waiting for the food, at for example, a restaurant. First, they have to shop the ingredients, and most people use their legs when they are grocery shopping. Next they have to prepare the ingredients, cut the proteins and peel the vegetables. Then they have to cook the meal, and I would argue that most people cook their meals standing, rather than sitting, leading the body to use some energy because of muscle engagement in the lower body [4]. If people stand while cooking, the body will be in some sort of movement, and may increase time spent in a light activity level. Standing may not have the same negative outcomes as sitting, although standing is in the lower end of energy expenditure [4].

If we could have convinced the participants to understand home cooked meals will lead to healthier food [77-81], their PA would likely increase, as I tried to explain above, because of the movement in the whole body that is leading to energy expenditure. The MET value could be around 2.5, like Ainsworth et al. [21] mentions in the compendium of PA. Cooking or preparing food is, according to Ainsworth, in the light category of PA, and will not increase the total time spent in MVPA with a MET value of under 2.9, but it will steal time from sedentariness.

In study 1, we wanted to take a daily activity, like cooking, too increase PA and reduce sedentariness. Since there are no other studies on that exact topic, I have been looking at other research/studies that have tried too increasing PA, or reducing sedentary time with physical activity interventions. Especially by using daily activities as the activity. I have also included some observational studies with the association between activities and PA level.

According to Ekblom-bak et al. [28], a life that is generally filled with daily activities, regardless of a persons exercise routines, is associated with longevity and cardiovascular health in older adults. Ekblom-bak and her colleagues [28] conclude, in their cohort study, that the most practicable method to reduce sedentary behavior is by promoting NEPAs.

Today, it is possible to exercise regularly, [19] and still be inactive and spent a high amount of time in sedentariness [4].

Breaking up sedentary time has many benefits [47]. According to Healy and colleagues [47] and Bailey et al. [35], sedentary behavior is a disadvantage with blood glucose and light-intensity physical activity is an advantage [35, 47]. The breaks should be every 20 minutes according to Bailey et al. [35] and should contain at least 2 minutes in a light intensity activity. Bailey et al. [35] suggested that physical activity interventions should aim for a movement-based intervention with a light activity level, like the CIHI study, that aimed for a higher raise in PA while cooking.

A RCT trial done by Tuominen et al. [111], on groups of mother-children pairs, was designed to examine whether or not a movement-to-music video program may be effective in increasing physical activity, or reduce sedentary time and in the home environment [111]. The researchers wanted the participants to sit less and be more active. The intervention group received a movement-to-music DVD and was instructed to exercise with it every other day. The participants had to use an accelerometer previous to the intervention and at the first, second and eight week after the baseline measurements. The researchers concluded that use of music and video material together could be beneficial for increase PA or reduce SB for those who have difficulties exercising outside the home. Working out at home represents a possibility of achieving a long-term health and how to improve the activity level [111].

First Step Program, done by Tudor-Lock et, al. [112] on a controlled daily physical activity intervention for individuals with type 2 diabetes, is an intervention that elicits an profound and immediate change in walking behavior. Summarized, the intervention was an effective real-world program for sedentary or insufficiently active, overweight, or obese adults with type 2 diabetes. To assess PA (defined as steps/day), each participant had to wore a pedometer over three consecutive days (including one weekend day) during their waking hours engaging in usual activities [112]. Relative to the control group, the participants increased their PA level by 43000 steps/day (approximately 30 min/day) during the intervention ( $P=0.0001$ ). Relapse by 24 weeks indicates that other strategies such as booster sessions are needed to maintain lifestyle change.

A meta-analysis done by Conn et al. [113], summarized, the effect interventions designed to increase physical activity have among healthy adults. They concluded that interventions that are designed to increase activity are modestly effective. They suggest that interventions designed to increase physical activity should emphasize behavioral strategies over cognitive strategies [113]. An abstract, written by Pate and O'Neill [114], on scientific literature, on after-school physical activity interventions, found mixed results. In some of the interventions the children increased their PA, and in others they did not increase their PA. Pate and O'Neill [114] argued that the programs had the potential to increase the activity levels, but the research on these programs were in some cases methodologically weak and limited. They concluded that well-controlled studies were needed to identify components that promote physical activity, leading children and adolescents to obtain a physical activity level [114].

In a longitudinal, pretest-posttest design [115], 49 working women were randomly assigned at the work site level to the control or intervention. Subjects in the intervention group kept daily records of their physical activities during the 12-week study, while those in the control group kept no records. In order to compare activity in the two groups, all subjects wore pedometers daily that recorded number of steps. There was a significant difference between groups in the pedometer values at the end of the study period multiple regression analysis showed that only the intervention was a significant predictor of the pedometer values. The results from this sample indicated that mean activity was greater in the intervention group compared to the control group. The authors concluded that recording daily activity is an acceptable and cost-effective intervention that may increase activity levels in women. They also conclude that more research is recommended to study the dual role of activity records as a data collection method as well as a potential intervention to increase physical activity [115].

In the HSL study, those who cooked considerably were most likely to use more time in the kitchen than those who answered that they cooked a little. Those who reported cooking more would than probably raise the met level to over 1.5 more often than the other groups. In perspective, light intensity levels are scored at METs up to 2,9 and in this category the behavior is done while standing, for example cooking. We can also see that, in both light and moderate intensity level (table 4.), the data shows a higher time in these activity levels on those who reported that they cooked considerably, than those who reported that they cooked a little. Which in turn may indicate that the participants who answered that they cooked considerably are increasing their energy expenditure. Thus, leading to increased daily activity.

It is highlighted that all human movement may have an impact on health [60]. Most present guidelines of physical activity are 150 minutes a week or 30 minutes a day of MVPA [38, 116]. This is only 1.5% of a total week (10,080 min), and maybe 3 % of our time being awake [33]. Troiano and his colleges [117], found out that the American population obtained less than 5% of the physical activity recommendations, but in study 1 (see table 2.) and study 2 (see table 4.) the participants was over the recommended guidelines of PA. Leading to unusual active participants in relations to the research [117].

## **5.2 Discussion of method:**

### **5.2.1 Design**

Originally study 1 was meant as a randomized controlled trial, but with too few voluntary participants the control group had to be left out. We strived for 120 participants, leaving 60 in the intervention group and the other 60 in the control group. With only 31 people signing up for the study, all of the participants had to be included into the intervention group. Without a control group and with a low number of participants that were recruited, may have had an effect on the validity and reliability of the study. There is three considerations that have impact on all stages of RCT according to Christ [118] these are; Philosophical, methodological, and ethical. RCT includes planning, implementing, evaluating and disseminating results that designate a causal association. Christ [118] also points out that unless there are tightly controlled conditions to the study that are put into place, human research are rarely followed predestine as planned. Thus, like study 1, the design did not turn out the way we had planned from the start.

A method study (study 2) is advantageously when you are looking for a context between, for example, time spent cooking and their PA level. In these types of aims it is advantageous to use this kind of study method, when the goal is to see if there is a connection between the variables [119].

The study design (in study 1) was not expensive, except the accelerometers, and there were no need for a lot of resources to complete the trial. Since we were three master students that were in the same project we could delegate the assignments, leading each of us to examine different

aims linked to different areas. Using accelerometer as a measurement unit, gave the researcher time to do other things linked to the study instead of following the participants around to see how active they were all day. Most likely it can give a more precise and accurate data relative to for example self-reports [120]. The study design in HSL was also low in cost in regards of the questionnaires. They are not pricey to conduct, and are often easy for the participants to answer. Using the accelerometer the researcher does not have to use a lot of time during the trial period with observations, like I mentioned in study 1. The combination of self-reports and accelerometer gives the study a better validity and reliability, leading the study to be credible.

To conduct an intervention study without a control group, can lead to selection bias and affect the results negatively. If there had been a control group, as in an RCT study, randomized selection of the participants could have reduced the selection bias. As a result of altering the design from RCT to an intervention study, the study's internal and external validity was affected. In addition, it leads the study to be less representative and it reduces the outer validity.

Time of the year may also have had an influence on the study, both the data that we collected, and also the amount of participants we recruited. The recruitment was done late in the autumn and the intervention was close to Christmas. When autumn comes, it gets darker and colder, some may reduce their PA because of the weather, therefore when we did not have a control group we could not catch these natural changes [121]. Christmas is also a stressful time of the year for many people, that signing up for a study, at this time of the year, may also influenced the recruitment process.

Because study 2 is a method study it does not tell us anything about causality. There were no significant discoveries in whether the participants that cooked little or considerably were little or more active than the other group. Because the study does not say anything about causality the participants could have spent, for example, more or less time at the gym than cooking. Leading to an increase, or decrease, PA, which could have caused significance, if there had been used another study method. There are also chances of confounding using cross sectional study that can cause errors in the results.

Study 1 was innovative, and there were in need of few resources to conduct the study, which means that there is an opportunity to try this intervention again or with some adjustments without spending a whole lot of money and resources.

A great part of the study 1 was the two night cooking class where the participants got to learn how to cooking healthy food from scratch and bake their own bread. The study did not measure if the cooking class got the participators to be more aware or changed the attitude towards physical activity, or that this daily activity might reduce the time they spent sitting.

The intervention had a length of one month, and could in all likelihood have lasted for one or two more months. This increase in length could have given the participants the opportunity to conduct these new changes in their food preparations and included it in their daily life and become a new habit [122].

In this master thesis, there was only examined the direct link between cooking and PA or sedentary time. According to one of the other master students, Delgado [123], that also was involved in CIHI, there were a significant increase in bread baking but there were no significant increase in cooking dinner or cutting vegetables. Delgado [123] concludes that bread baking is an easier and less complex skill then cooking dinner. She further states [123] that cooking requires more planning and requires several ingredients then break baking. By subsequent food interventions Delgado [123] points out that the interventions should aim for cooking skills to increase the participants self efficacy.

The intervention went temporarily as planned, when we first decided to have an intervention without a control group. Timely we kept on schedule, but it was challenging finalize the cooking course, in addition, to finalize the recipe booklet, and make the shopping list, of all the ingredients, that were needed to make all of the recipes. Subsequently, there could have been several assistants at the cooking courses. It was consuming when we had to organize all of the ingredients, pre make some of the recipes; assist the participants when needed and cleaning up afterwards.

### 5.2.2 Recruitment/ Study sample

One of the biggest concerns, which affected a weakness in the study 1, was the amount of participants that were recruited. Few participants lead to few data, which gave the study a low reliability and validity [124]. The selection process, the recruiting, starts from the first notification of the study to the enrollment of the participants [125]. The recruiting period in CIHI lasted for almost two months and could probably have been expanded, so that we could have had more time to enlist more participants, with a wider spread in the society based on social-economic status (SES), ethnicity and age. This to expand the representative of the population, thus, led to increase the external validity of the study. Longer recruiting could have helped to get more participants, but the master thesis had a deadline that we had to adhere to, leaving us with too few participants. If we had more time for recruitment, we could have used more time conducting a better recruitment plan, and maybe used more and different channels to get attention to the study. The goal was to recruit potential participants and aim to recruit suitable participants who represent the targeted population, and to have an ample amount of participants to power the study and fulfill the demands of sample size [126]. The recruitment process in HSL did not go as planned. The study aimed for 100 participants but only got 75.

I would argue that there should be more research on these topics where one of the main goals should be to recruit enough participants to fulfill a RCT trial. The participants should probably use more time in the intervention and cook more over a longer period of time. Since there are no other studies on these two direct subjects, there should be other studies conducted, testing the aims again to see if this can lead to increased PA or reduced sedentary time.

The issue of insufficient recruitment, as in CIHI, can have an unfortunate ethical and scientific outcome [127, 128]. Studies that terminate a head of time, or in the end, fail to recruit sufficient statistical power is ethically unacceptable according to Gul et al [125]. For this reason, timely and successful recruitment is vital to the success of the research when studying human subjects [125]. According to Drew et al [129] sufficient sample size is required to ensure avoidance of Type II error.



To sign up for the study the participants had to, voluntarily, consult a webpage and sign up for the project by themselves. For some people, this can be a barrier and lead to lower recruitment. The project managers should probably contact the participants or send them an invitation by mail or email. Voluntary enrollment can cause selection bias because the participants have to sign up for the project themselves. Some may not sign up because they have to consult a web page, read about the whole project and then fill out the consent form all on their own [130].

The inclusion criteria might have been too strict, and because of my aims the inclusion criteria probably did not need overweight participants (BMI over 25). It could also have included people who already had lost some weight over the last months. Since there were no negative outcomes to participate in the study, potential participants with chronic diseases could have asked their doctor for a medical certificate if they wanted to sign up for the study. Pregnant or lactating women could also have been included relative to my aim in the study; additionally people with high blood pressure and special diets could also have been candidates to my master thesis aims.

The intervention could have been a barrier alone; the researchers demanded quite a lot from the participants. They had to show up for two measurements, wear the accelerometer two times with a length of 4 days each time, in addition they had to use two of their leisure nights on the cooking class and then participate in the intervention for approximately one month.

15 of the originally 31 participants that signed up finished the whole study. There may have been different factors that caused these dropouts. Some may have been sick, some may not have found the time to do the whole intervention, lack of interest on the study, distance, age, experiencing that the study is uncomfortable and stressful [125, 131]. So why did we have so few that wanted to participate? One of our thoughts is, probably, the fear of the weighing. Many of the participants told us that they had dreaded this. Wearing the PA monitor could also have been a reason why there were few that signed up for the study and a reason why some of the participants quit the study. The inclusion criteria could be wider, for example; the participants did not need to have a BMI over 25. The recruitment period was also short and should have been expanded. More time could have led to better planning and created a preferable strategy, so that several people may have attended the intervention.

There were not only ethnic Norwegians that signed up and finished the studies. 13 % had a mother or a father that was of another ethnicity than Norwegian in study 1 and 21 % that had a different ethnicity than Norway or mother or father of another ethnicity in study 2 (table 1 and 3). This can give a better generalization and be represent the whole population, and not only for ethnical Norwegians.

Keeping participants in the study is called retention. It is important to maintain and develop a relationship with the participants so that we can encourage the participants to continue for the whole study duration [132]. In CIHI, 31 participants was recruited, but only 15 of them completed the whole study. To maintain a sufficient number of participants, the retention and recruitment process is important as they can influence the validity of the research discoveries [125]. Gul et al. [125] specifies that retention and recruitment are important for any research, but it is specifically important for RCT.

When humans are placed into experimental conditions, they infrequently act as they ordinarily would in the same setting [118]. This can lead to suspicion regarding the participants in study 1. When conducting RCT designs and deductive research, anomalies can arise when working with humans in natural settings, or in intervention administrations. Often these designs can lead to “error” or “confounding variables” [118].

There were few participants recruited to study 2. From 19 kindergartens in Aust and Vest Agder there were only 86 parents or guardians that signed up for the study and only 75 that completed the whole study.

### **5.2.3 Procedures/ Measurements**

One of the studies greatest strengths was the use of objective measurements (PA monitor). This device gives the opportunity to measure exact time spent in light intensity, MVPA and sedentary behavior. Data that is self-reported can often give us wrong data in either direction. Using accelerometer gives the researcher solid and concrete numbers to analyze. There are several advantages using PA monitor, they cause low participant burden and are easy to use. In addition, accelerometers can store substantial amounts of data for extended periods of time. Further, they can record a total volume in physical activity and sedentary time, you may also

set a specific stop and start time, making it possible to measure physical activity or inactivity at a given time [133].

The PA monitor may also be a weakness in the studies. The participants should have had a longer period wearing the accelerometer; they only wore it for 4 whole days, 2 week days and 2 weekend days. Commonly, a PA monitor is normally worn for one week [75]. The purpose of wearing the accelerometer after the intervention (study 1) was of a practical matter. When the project started there were only 20 accelerometers available for the project. So we had to measure some participants at a time, and wait until we got the used ones back before we could give them out again to the others. There are so many factors that may have caused us to fail finding significance in our hypothesis. We just have to look back at this as a good learning experience, and learn from our failures.

Another weakness of the study 1 was the use of the PA monitoring during the intervention rather than after the intervention. In this study, we had to measure the post data after the intervention instead of during the intervention because of practical reasons. There were not enough devices so that the participants could wear the PA monitor at the same time. Therefore we had to measure the post data after the intervention was done and measure some participants at a time. Therefore, we do not know if the participants continued to cook after the intervention. To measure this exact we should have measured the participants prior the intervention, as we did, then during the intervention and then after the intervention to capture if the participants cooked more, and then increased their PA or reduced their sedentary time. The combination of multiple measurements (questionnaires and PA monitor), can capture many different aspect, in the study, that could have been missed if the researchers only had chosen one of the two unit of measures.

Self-reported data can cause wrong data, the participants', can either misunderstand the questions; choose to answer the questions right or over/under estimate. There can be bias in these types of data, a bias that is called recall bias. That means that the participants cannot tell exactly what they normally did in that context, this can lead to answer that the participants thinks are right or they answer the alternative answers that fit the participants', the best [130]. In a structured questionnaire there may occur scale bias, different people would have different conceptions on the scale they have to choose from on the questionnaire [130]. When the participants had to answer how much time they used on cooking, in real life the time they

spent cooking dinner could have been under or over estimated. Leading us to a very different dataset had this been observed.

#### **5.2.4 Validity and reliability**

All research strives to have high validity and reliability [134]. Validity is the method measure the concepts they intend to measure [134, 135], and if the data are relevant relative to the aim [134]. To achieve validity it is important that all of the measures are reliable [135].

Reliability means how reliable the measures are and it presupposes that the measures are done precise, and that the same data can be measured again [134]. To achieve these goals the measure instruments play an important role in addition to the people who process the data [135]. The predominant question the researchers have to ask themselves when evaluating the study's research design, is this design the best way to answer the hypotheses, and are this method the most valid and reliable [134]

Shadish, Cook and Campbell (2002) describe four different aspects of validity to evaluate the research design: statistical conclusion validity, internal validity, external validity and construction validity. Statistics conclusion validity is about that there is an empirical relationship between the dependent and independent variable, in other words the extent to which we draw correct conclusions about the correlation between the variables on the basis of the statistical analyzes. There are several ways to achieve good statistical conclusion validity, but the safest way is to have the collection of data on a wide range population [136]. Internal validity is the confidence that we can place in the cause and effect relationship in a study. The key question that you should ask in any experiment is: could there be an alternative cause, or causes, that explain the observations and results? [136]. External validity deals with the study's ability to generalize. This means the extent to which the results of a study can be generalized to other people, environments, situations or treatments [134, 136]. One can remove the external validity by performing the same study on several different selections [134].

### 5.3 Ethics

Ethical principles of confidentiality, informed consent, no use of incentives, the quest for truth, availability, and quality, were central in the development and implementation of both studies [130]. When developing inclusion and exclusion criteria for the intervention study, it was important that people who used various drugs, pregnant and breastfeeding women and persons with illnesses or other states were not included in the study because of risks related to their health and that their conditions could affect the results in the studies.

For both studies, the Declaration of Helsinki were taken into consideration where informed consent, respect for the participants, and that participants were subjected to involuntary discomfort and risk. Before initiation of the projects and before recruitment of participants was initiated, it was applied to NSD for approval of the projects. The recruitment processes were conducted in a proper manner with sufficient information studies and voluntary enrollment. In both studies included participants assigned an ID numbers used by answering the questionnaire and when they filled out food diaries. In the intervention study, ID number was also used when the weight, height and waist circumference were recorded. Contact information about the participants and information on height, weight and waist circumference were stored in a password protected computer to ensure confidentiality.

## **6.0 Conclusion**

We observed no significant associations between cooking and physical activity level or reduced sedentary time, neither in the intervention (CIHI) or the method (HSL) studies. The researcher is uncertain why there were no significant discoveries.

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## **Attachements**

- 1: Approval the Norwegian Data Inspectorate Cooking for Improved Health Intervention
- 2: Information about the Cooking for Improved Health Intervention and Consent Cooking for Improved Health Intervention
- 3: Questionnaire Cooking for Improved Health Intervention
- 4: Recipe booklet Cooking for Improved Health Intervention
- 5: Approval the Norwegian Data Inspectorate Healthy and Sustainable Lifestyle
- 6: Request form to the kindergartens and parents Healthy and Sustainable Lifestyle
- 7: Consent Healthy and Sustainable Lifestyle
- 8: Questionnaire Healthy and Sustainable Lifestyle

1: Approval the Norwegian Data Inspectorate Cooking for Improved Health



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Vår dato: 28.08.2014

Vår ref: 39538 / 3 / LT

Deres dato:

Deres ref:

## TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 22.08.2014. Meldingen gjelder prosjektet:

39538

*Matlaging for bedre helse*

*Behandlingsansvarlig*

*Universitetet i Agder, ved institusjonens øverste leder*

*Daglig ansvarlig*

*Elling Bere*

*Student*

*Lisbeth Delgado*

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

Personvernombudets tilråding forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 31.12.2016, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Katrine Utaaker Segadal

Lis Tenold

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*Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.*

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Formålet med prosjektet er å evaluere en enkel intervensjon med mål om å øke matlaging fra bunnen av.

Utvalget informeres skriftlig om prosjektet og samtykker til deltakelse. Informasjonsskrivet er godt utformet.

Det behandles sensitive personopplysninger om etnisk bakgrunn eller politisk/filosofisk/religiøs oppfatning, jf. personopplysningsloven § 2 punkt 8) a) og helseforhold, jf. personopplysningsloven § 2 punkt 8) c).

Personvernombudet legger til grunn at forsker etterfølger Universitetet i Agder sine interne rutiner for datasikkerhet. Dersom personopplysninger skal sendes elektronisk eller lagres på mobile enheter, bør opplysningene krypteres tilstrekkelig.

Survey Xact er databehandler for prosjektet. Universitetet i Agder skal inngå skriftlig avtale med Survey Xact om hvordan personopplysninger skal behandles, jf. personopplysningsloven § 15. For råd om hva databehandleravtalen bør inneholde, se Datatilsynets veileder: <http://www.datatilsynet.no/Sikkerhet-internkontroll/Databehandleravtale/>. Personvernombudet ber om kopi av avtalen for arkivering (sendes: [personvernombudet@nsd.uib.no](mailto:personvernombudet@nsd.uib.no)).

Forventet prosjektslutt er 31.12.2016. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å:

- slette direkte personopplysninger (som navn/koblingsnøkkel)
- slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. bosted/arbeidssted, alder og kjønn)

Vi gjør oppmerksom på at også databehandler (Survey Xact) må slette personopplysninger tilknyttet prosjektet i sine systemer. Dette inkluderer eventuelle logger og koblinger mellom IP-/epostadresser og besvarelser.

## 2: Information about the Cooking for Improved Health Intervention and Consent

### Cooking for Improved Health Intervention

# Forespørsel om deltakelse i forskningsprosjektet

## *”Matlaging for bedre helse”*

### **Bakgrunn og hensikt**

Det er et spørsmål til deg om å delta i en forskningsstudie for å se om kurs i matlaging har gunstig effekt på din helse. Overvekt er et stort problem i dagens samfunn, både for individet og for samfunnet. Mange slankekurer lanseres uten at en har gjennomført studier som kan dokumentere hvilken effekt dietten har. Ved Universitetet i Agder ønsker vi å undersøke om enkel matlaging i seg selv kan ha positiv innvirkning på enkeltindividets helse. I denne studien spør vi om deltagerne som har en kroppsmasseindeks over 25 kg/m<sup>2</sup> og som er mellom 18 og 65 år om de vil delta.

### **Hva innebærer studien?**

Studien er en randomisert kontrollert studie. Det vil si at når en har sagt seg villig til å delta i studien og fylt ut et spørreskjema, så blir man tilfeldig trukket til å være med i en gruppe som skal få delta på matlagingskurs (intervensjonsgruppen) eller til en gruppe som ikke får noen oppfølging (kontrollgruppen). Begge gruppene må fylle ut spørreskjema ved to anledninger med en mulig tredje gang ett år senere (hvis dette blir tilfelle, så blir dere kontaktet igjen), og komme til Spicheren (Kristiansand) to ganger for å måle vekt, høyde, midjeomkrets og hudfoldtykkelse, samt gå med en aktivitetsmåler i en uke. Hvis man blir trukket til gruppen som skal delta på matlagingskurs, så får man utdelt en oppskriftshefte og får komme på to matlagingskvelder på Universitetet i Agder. I vedlegg A gis flere detaljer om studien.

### **Mulige fordeler og ulemper**

Det er ingen risiko ved denne studien. Matrettene i oppskriftsboken ligger innenfor dagens nasjonale kostråd. Mulige ulemper ved studien er at matlaging kan kreve noe planlegging og tid. Deltagerne bør kunne lage mat selv. Det vil også forventes at deltagerne møter opp på to tidspunkt for hhv målinger på Spicheren og matlagingskveldene (intervensjonsgruppa).

### **Hva skjer med informasjonen om deg?**

Informasjonen som registreres om deg skal kun brukes slik som beskrevet i hensikten med studien. Alle opplysningene vil bli behandlet uten navn og fødselsnummer eller andre direkte gjenkjenner opplysninger. En kode knytter opplysningene du gir i spørreskjema til opplysninger fra målingene tatt på Spicheren.

Det er kun autorisert personell knyttet til prosjektet som har adgang til navnelisten og som kan finne tilbake til deg. Listen slettes når dataene er ferdig behandlet, som er i løpet av 2016.

Det vil ikke være mulig å identifisere deg i resultatene av studien når disse publiseres.

### **Frivillig deltakelse**

Det er frivillig å delta i studien. Du kan når som helst og uten å oppgi noen grunn trekke ditt samtykke til å delta i studien. Dersom du ønsker å delta, klikker du på «ønsker å delta» nedenfor. Du skal da fylle inn kontaktinformasjon og du vil få tilsendt et idnummer og link til et spørreskjema. Om du nå sier ja til å delta, kan du senere trekke tilbake ditt samtykke uten å forklare hvorfor. Dersom du senere ønsker å trekke deg eller har spørsmål til studien, kan du kontakte Lisbeth Delgado (tlf: 99546211). Eller du kan kontakte prosjektledere Nina Øverby, tlf: 38141324 ([nina.c.overby@uia.no](mailto:nina.c.overby@uia.no)) eller Elling Bere, tlf: 38142329 ([elling.bere@uia.no](mailto:elling.bere@uia.no)).

**Ytterligere informasjon om studien finnes i vedlegg A – utdypende forklaring av hva studien innebærer.**

**Ytterligere informasjon om biobank, personvern og forsikring finnes i vedlegg B – Personvern, biobank, økonomi og forsikring.**

**Samtykkeerklæring finner du ved å klikke på «ønsker å delta».**

#### **Hilsen**

<b>Therese Iversen</b>	<b>Linn Salvesen</b>	<b>Lisbeth Delgado</b>	<b>Nina Øverby</b>	<b>Elling Bere</b>
Masterstudent	Masterstudent	Masterstudent	Professor	Professor

## **Vedlegg A- utdypende forklaring av hva studien innebærer**

### **Kriterier for deltakelse**

Du må være over mellom 18 - 65 år. Du må ha en kroppsmasseindeks på minst 25 kg/m<sup>2</sup> for å kunne delta i studien. Kroppsmasseindeks regnes ut med følgende formel: vekt (kg)/høyde<sup>2</sup> (cm). Hvis du er usikker på dette, så kan prosjektmedarbeideren regne ut din BMI.

Det er også noen andre grunner som gjør at du ikke kan delta i studien. Det er hvis du har endret kroppsvekt på +/- 3 kg de siste to månedene, hvis du er gravid eller ammende, hvis du har hjerte- og karsykdom, eller lever- og nyresykdom, psykiatrisk sykdom, systemisk infeksjon eller endokrine sykdommer, beskrevet malabsorpsjon, andre tilstander som gjør at det ikke er forsvarlig å delta, som høyt blodtrykk eller høyt kolesterol som blir/har blitt behandlet med medisin de siste 3 månedene, systolisk blodtrykk >160 mmHg og/eller diastolisk blodtrykk >100 mmHg, og dersom du går på spesielle dietter.

Hvorvidt man er innenfor kriteriene blir avgjort med en gang man sender samtykkeerklæring. Dette vil være basert på din egen beskrivelse av din helse.

### **Bakgrunnsinformasjon om studien**

Usunt kosthold er blant de ledende risikofaktorene for den globale sykdomsbyrden, overvekt og fedme. I Norge er omtrent 40 % av voksne overvektige, mens 14 % har fedme. Dette gjør at det er et sterkt behov for gjennomførbare tiltak som kan hjelpe til med vektreduksjon, men også at personene kan holde vekten nede.

Det er funnet positiv sammenheng mellom det å spise borte fra hjemmet og et mer ugunstig kosthold, mens regelmessig matlaging er assosiert med bedre kvalitet på kostholdet. Mindre hjemmelaget mat innebærer mer ferdigmat og halvfabrikata, som inneholder mer sukker, mettet fett og salt. Denne type prosessert mat hevdes av noen å være den viktigste matrelaterte årsaken til dagens fedmeepidemi og relaterte sykdommer. Mer matlaging og dermed mindre prosessert mat vil bidra til bedre kvalitet på kostholdet, og videre forebygging av fedme og livsstilssykdommer. I tillegg til en rekke andre positive virkninger, deriblant et mer gunstig spisemønster med regelmessige måltider, og muligens mindre miljøbelastning. Det er lite forskning på sammenhengen mellom matlaging og helse, derfor ønsker vi å inkludere ca 100 personer til denne studien hvor vi kan utforske denne sammenhengen.

### **Undersøkelser den inkluderte må gjennom**

Alle deltagerne må fylle ut et spørreskjema to ganger, eventuelt tre ganger. I dette spørreskjemaet er det spørsmål om kosthold, aktivitet og bakgrunnsvariabler. I tillegg vil høyde, vekt, midjemål, midje-hofte-ratio og hudfoldtykkelse bli målt, samt aktivitetsnivået hvor en må gå med en aktivitetsmåler i 7 dager. Ingen av disse undersøkelsene medfører noe ubehag. Disse målingene gjennomføres før og etter intervensjonen. Intervensjonsgruppa skal også føre en dagbok hvor de registrerer hvorvidt de har laget maten fra bunnen av de ulike dagene eller ikke.

### **Tidsskjema – hva skjer og når skjer det?**

Studien starter med å rekruttere deltagere i september 2014. I oktober vil alle deltagerne måtte komme til Spicheren på avtalt tidspunkt for å gjennomføre de undersøkelsene som er beskrevet i forrige avsnitt. Dette vil ta ca 15 minutter. Selve intervensjonen varer i fire uker. Intervensjonsgruppen må delta på to matlagingskvelder på UiA, Kristiansand i løpet av oktober. De vil også få et hefte med forslag til middagsretter. Etter at intervensjonen er ferdig i slutten av november, vil en på nytt måtte kommet til Spicheren for de samme undersøkelsene.

Vedlegg A og B- 2014.

### **Mulige fordeler**

Fordelene med studien er at man kan oppleve mulig varig vekttap. **Mulige bivirkninger**  
Det er ingen bivirkninger av studien.

### **Mulige ubehag/ulemper**

Det kan oppleves som tidkrevende å lage mat fra bunnen av dersom man ikke er vant til å lage mat selv. På kurset som alle deltagere i intervensjonsgruppen skal gjennomføre, vil man få tips om hvordan man kan planlegge slik at en enklere klarer å lage mat fra bunnen av. Ellers er det ingen ulemper annet enn tidsbruk til å fylle ut spørreskjema og møte til undersøkelse på Spicheren ved to anledninger, samt gå med aktivitetsmålere.

### **Studiedeltakerens ansvar**

Det er studiedeltakers ansvar å følge matlagingsplanen. Personene i intervensjonsgruppen blir bedt om å krysse av i hvilken grad de klarer å følge planen hver dag i de 4 ukene den gjennomføres.

### **Kompensasjon til og dekning av utgifter for deltakere**

Alle deltagerne er med i trekningen av et gavekort på 1000 kr.

## **Vedlegg B - Personvern, biobank, økonomi og forsikring**

### **Personvern**

Opplysninger som registreres om deg er informasjon om hva du spiser, hvor aktiv du er, vekt og høyde, midjemål, midje-hofte-ratio, hudfoldtykkelse og noen bakgrunnsvariabler, samt i hvor stor grad du lager maten din selv i løpet av intervensjonsperioden (gjelder bare intervensjonsgruppa).

Universitetet i Agder ved instituttleder ved Institutt for folkehelse, idrett og ernæring, Svein Rune Olsen er databehandlingsansvarlig.

### **Utlevering av materiale og opplysninger til andre**

Hvis du sier ja til å delta i studien, gir du også ditt samtykke til at data og aidentifiserte opplysninger utleveres til Universitetet i Agder.

### **Rett til innsyn og sletting av opplysninger om deg og sletting av data**

Hvis du sier ja til å delta i studien, har du rett til å få innsyn i hvilke opplysninger som er registrert om deg. Du har videre rett til å få korrigert eventuelle feil i de opplysningene vi har registrert. Dersom du trekker deg fra studien, kan du kreve å få slettet innsamlede prøver og opplysninger, med mindre opplysningene allerede er inngått i analyser eller brukt i vitenskapelige publikasjoner.

### **Økonomi**

Studien er finansiert gjennom forskningsmidler fra Universitetet i Agder. Det er ingen interessekonflikter i studien.

### **Informasjon om utfallet av studien**

Informasjon om utfallet av studien vil bli publisert i internasjonale tidsskrift.



## **Samtykke til deltakelse i studien (dette er på nettsiden)**

Jeg er villig til å delta i studien

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(Navn prosjektdeltaker)

Kontaktinformasjon for å avtale tid til oppmøte på Spicheren i Kristiansand:

Mobil: \_\_\_\_\_

E-post: \_\_\_\_\_

### 3: Questionnaire Cooking for Improved Health Intervention

Takk for at du tar deg tid til å delta i forskningsstudien Matlaging for bedre helse. Studien inngår som en del av tre mastergradsprosjekt ved UiA og ledes av professorene Elling Bere og Nina Øverby.

Spørreskjemaet vil ta ca 25 min å besvare. Spørreskjemaet handler i hovedsak om dine kost- og aktivitetsvaner, samt helse og livskvalitet.

Sett deg gjerne et sted hvor du kan sitte uforstyrret, les spørsmålene nøye og svar så godt du kan. Lykke til!  
Trykk på neste for å komme i gang.

TUSEN TAKK FOR AT DU DELTAR!

Vennlig hilsen

Mastergradsstudentene Lisbeth Kvanvik, Therese Iversen og Linn Tryfoss Gerhardsen

## Først vil vi stille deg noen spørsmål om mat, drikke og spisevaner:

Hvor ofte spiser du:

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag
Frokost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lunsj	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kveldsmat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mellommåltider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Hvor ofte drikker du?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Melk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fruktjuice uten tilsatt sukker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vann	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drikker med tilsatt sukker (eks. brus, saft, iste, iskaffe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drikker med kunstig søtning (eks. lettbrus, lettsaft, lett iste)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kaffe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Te	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alkohol til måltider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alkohol utenom måltider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte spiser du?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Typisk nordiske frukter (eple, pære, plomme)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Andre frukter (eks. banan, appelsin, kiwi, ananas)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jordbær og andre dyrkede bær	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ville bær (eks. blåbær, tyttebær, multer)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rotgrønnsaker (eks. gulrot, kålrot, løk)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kål (eks. blomkål, brokkoli, rosenkål, grønnkål)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Andre grønnsaker (eks. tomat, agurk, paprika, salat)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Belgfrukter (eks. erter, bønner, kikerter)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Usaltede nøtter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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### Hvor ofte spiser du?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Poteter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ris	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pasta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte spiser du følgende varmrett?

	Aldri	Mindre enn 1 g/mnd	1-3 g/mnd	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag
Viltkjøtt (elg, reinsdyr, rådyr)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rent kjøtt av eks. okse, svin, lam, kalkun, kylling (ikke viltkjøtt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mager fisk (torsk, sei, hyse)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fet fisk (makrell, sild, kveite)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laks og/eller ørret	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annen sjømat (eks. reker, krabber, blåskjell)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte spiser du?

Aldri Mindre 1-3 1 2 3 4 5 6 Hver  
enn 1 g/mnd g/uke g/uke g/uke g/uke g/uke g/uke dag  
g/mnd

Suppe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gryterett (eks. lapskaus, frikassè, fiskegryte, vegetargryte, Toro-gryte)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nudler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pizza	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ferdigretter fra eks. Findus, Fjordland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pølser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pommes frites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hamburger/karbonade/kjøttkake/kjøttpudding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kjøttdeigbaserte middagsretter (eks. taco, pasta)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiskepinner/fiskekake/fiskepudding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*\*

### Hvor ofte spiser du?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Fint brød/rundstykker/loff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grovt brød/rundstykker (minst 50% sammalt mel/hele korn og kjerner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grove knekkebrød	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Havregrøt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Musli/havregryn uten tilsatt sukker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Andre frokostblandinger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte spiser du?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Salte kjeks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Søte kjeks/cookies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Søtt bakverk (eks. kaker, boller)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salt snacks (eks. chips, ostepop, salte nøtter)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Søtsaker (eks. smågodt, sjokolade)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte salter du maten du spiser?

- Aldri
- Mindre enn 1 gang/uke
- 1 gang/uke
- 2 ganger/uke
- 3 ganger/uke
- 4 ganger/uke

- 5 ganger/uke  
 6 ganger/uke  
 Hver dag  
 Flere ganger daglig

\*\*

### I hvilken grad er du enig i følgende påstander?

	Helt uenig	.....	.....	Verken enig eller uenig	.....	.....	Helt enig
Jeg prøver stadig ny og ulik type mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg stoler ikke på ukjent mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hvis jeg ikke kjenner til hva som er i maten, vil jeg ikke smake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er redd for å spise ting jeg ikke har spist før	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er veldig kresen på hva slags mat jeg vil spise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg spiser nesten all slags mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag
Spiser du på restaurant/kafè	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spiser du mat fra fast-food restaurant (eks. McDonalds, gatekjøkken)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spiser du mat kjøpt på bensinstasjon/stor-kiosk (eks. 7-eleven, Narvesen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Har du hovedansvar for matlagingen hjemme?

- Ja  
 Nei  
 Ansvaret er delt

### Hvor ofte?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag
Kutter du opp grønnsaker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kutter du opp frukt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lager du middag fra bunnen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor mye salt tilsetter du i de hjemmelagede middagsrettene?

- Mindre enn det som står i oppskriften  
 Mengden som står i oppskriften  
 Mer enn det som står i oppskriften  
 Bruker aldri oppskrift

\*\*

## Hvor ofte lager du?

	Aldri	Mindre enn 1 g/måned	Månedlig, men mindre enn 1 g/uke	1 g/uke	Mer enn 1 g/uke
Amerikansk pizza (tykk bunn og mye fyll)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Italiensk pizza (tynn bunn og begrenset med fyll)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Når du lager pizza, hvor ofte er?

	Alltid	Ofte	Av og til	Sjelden	Aldri
Sausen hjemmelaget (ikke fra glass/pose)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bunnen hjemmelaget (ikke fra pose/rull)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Hvor ofte baker du?

	Aldri	Mindre enn 1 g/måned	Månedlig, men mindre enn 1 g/uke	1 g/uke	Mer enn 1 g/uke
Fint brød/rundstykker (0-25% sammalt mel/hele korn og kjerner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Halvgrovt brød/rundstykker (25-50% sammalt mel/hele korn og kjerner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grovt brød/rundstykker (50-75% sammalt mel/hele korn og kjerner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ekstra grovt brød/rundstykker (50-75% sammalt mel/hele korn og kjerner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Når du baker brød, hvor ofte bruker du?

	Alltid	Ofte	Av og til	Sjelden	Aldri
Brød-mix	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gjær eller andre hevemidler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hjemmelaget surdeig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Hvor ofte lager du?

	Aldri	Mindre enn 1 g/måned	Månedlig, men mindre enn 1 g/uke	1 g/uke	Mer enn 1 g/uke
Suppe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gryterett som eks. frikassè, lapskaus, fiskegryte, vegetargryte, Toro-gryte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Når du lager suppe eller andre "gryteretter", hvor ofte bruker du?

	Alltid	Ofte	Av og til	Sjelden	Aldri
Pose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buljong (industrifremstilt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hjemmelaget kraft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*\*

## I hvilken grad er du enig i følgende påstander?

	Helt enig	Delvis enig	Verken enig eller uenig	Delvis uenig	Helt uenig
Jeg kjøper ofte lokalprodusert mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg kjøper ofte sesongens råvarer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg kjøper ofte økologisk mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg prøver å spise mindre animalske matvarer (kjøtt, fisk, meieriprodukter og egg) for å spare miljøet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg velger bevisst matvarer som er miljømerket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er flink til å kildesortere husholdningsavfallet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg kaster nesten aldri mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg dyrker spiselige planter hjemme til eget forbruk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg sanker spiselige ville planter/bær/sopp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg jakter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg fisker fisk/skalldyr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I hvilken grad stemmer følgende påstander for deg?

	Stemmer ikke i det hele tatt	-	-	Stemmer til dels	-	-	Stemmer helt
Å nyte mat er en av de viktigste gledene i livet mitt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg vil heller spise mitt favorittmåltid enn å se mitt favoritt TV-program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg tenker på mat på en positiv og forventningsfull måte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Penger brukt på mat er vel anvendte penger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dersom jeg kunne tilfredsstillere mine ernæringsmessige behov trygt, billig og uten sult ved å ta en daglig pille, ville jeg gjøre dette	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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## Så noen spørsmål om transportvaner:

Hvor langt er det fra hjemmet ditt til?

Fyll inn antall km. For eksempel 3,4

Arbeidsplassen/studiestedet? \_\_\_\_\_

Nærmeste matvarebutikk \_\_\_\_\_

Nærmeste sentrum \_\_\_\_\_

Har du egen sykkel?

Ja

Nei



Har du el-sykkel?

- Ja  
 Nei

Hvor mange dager i uka er du på jobb/skole (ikke hjemmekontor)?

—

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Hvordan kommer du deg **som oftest** til og fra i sommerhalvåret når du?

	Til fots	Sykkel/el-sykkel	Bil/motorsykkel/moped/skuter	Offentlig transport	Ikke aktuelt
Skal på jobb/studere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handler matvarer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handler andre varer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transporterer deg selv på fritiden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transporterer barn til/fra barnehagen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvordan kommer du deg **som oftest** til og fra i vinterhalvåret når du?

	Til fots	Sykkel/el-sykkel	Bil/motorsykkel/moped/skuter	Offentlig transport	Ikke aktuelt
Skal på jobb/studere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handler matvarer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handler andre varer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transporterer deg selv på fritiden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transporterer barn til/fra barnehagen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Noen spørsmål om fysisk aktivitet

Hvor ofte er du fysisk aktiv i minst 30 minutter totalt i løpet av dagen (i minst 10 minutter om gangen)? Med fysisk aktivitet menes **all aktivitet** hvor hjertet ditt slår fortere enn vanlig og hvor du blir andpusten innimellom, for eksempel rask gange.

- Aldri  
 Mindre enn 1 g/uke  
 1 g/uke  
 2 g/uke  
 3 g/uke  
 4 g/uke  
 5 g/uke  
 6 g/uke

Hver dag

\*\*

Hvor ofte **trener** du eller driver med idrett?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Utendørs (alle typer idrett)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innendørs (alle typer idrett, i gymsal, i treningsstudio, i basseng etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte driver du med **utendørs aktiviteter** i sommerhalvåret (eks. hagearbeid, bading/svømming, lek, vedstabling)?

- Aldri
- Mindre enn 1 g/måned
- Månedlig, men mindre enn 1 g/uke
- 1 g/uke
- Mer enn 1 g/uke

Hvor ofte driver du med **utendørs aktiviteter** i vinterhalvåret (eks. snømåking, aking, gå på skøyter)?

- Aldri
- Mindre enn 1 g/måned
- Månedlig, men mindre enn 1 g/uke
- 1 g/uke
- Mer enn 1 g/uke

\*\*

De to neste spørsmålene handler om hvor ofte du er på tur:

Hvor ofte er du på tur i sommerhalvåret?

	Aldri	Mindre enn 1 g/måned	Månedlig, men mindre enn 1 g/uke	1 g/uke	Mer enn 1 g/uke
I nærmiljøet (ikke i grøntområder)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I naturen (eks. i skogen, på fjellet, ved sjøen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I andre grøntområder (eks. parker)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte er du på tur i vinterhalvåret?

	Aldri	Mindre enn 1 g/måned	Månedlig, men mindre enn 1 g/uke	1 g/uke	Mer enn 1 g/uke
I nærmiljøet (ikke i grøntområder)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I naturen (eks. i skogen, på fjellet, ved sjøen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I andre grøntområder (eks. parker)

I hvilken grad stemmer følgende påstander om fysisk aktivitet (generelt) for deg?

	Stemmer ikke i det hele tatt			Stemmer til dels			Stemmer helt
Jeg liker fysisk aktivitet svært godt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Det er moro å drive med fysisk aktivitet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg synes fysisk aktivitet er kjedelig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er ikke opptatt av fysisk aktivitet i det hele tatt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg vil beskrive fysisk aktivitet som svært motiverende	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg synes fysisk aktivitet er ganske fornøylig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mens jeg er fysisk aktiv, tenker jeg på hvor mye jeg liker det	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I hvilken grad er du enig i følgende påstander?

	Helt enig	Delvis enig	Verken enig eller uenig	Delvis uenig	Helt uenig
Jeg tar trappene i stedet for heisen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg tar trappene i stedet for rulletrappa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*\*

## Spørsmål om dine skjermvaner:

På fritiden, omtrent hvor mange timer om dagen ser du vanligvis på TV/film?

	Ingen	Mindre enn 1/2 t	1/2-1 t	2-3 t	4 t	Mer enn 4 t
På hverdagene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I helgene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte spiser du mens du ser på TV/film (både jobb og fritid)?

- Aldri
- Mindre enn 1 g/uke
- 1 g/uke
- 2 g/uke
- 3 g/uke
- 4 g/uke
- 5 g/uke
- 6 g/uke
- Hver dag

Flere ganger daglig

På fritiden, omtrent hvor mange timer om dagen bruker du vanligvis PC/nettbrett/smarttelefon/spillkonsoll?

	Ingen	Mindre enn 1/2 t	1/2-1 t	2-3 t	4 t	Mer enn 4 t
På hverdagene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I helgene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*\*

Hvor ofte spiser du mens du bruker PC/nettbrett/smarttelefon/spillkonsoll (både jobb og fritid)?

- Aldri  
 Mindre enn 1 g/uke  
 1 g/uke  
 2 g/uke  
 3 g/uke  
 4 g/uke  
 5 g/uke  
 6 g/uke  
 Hver dag  
 Flere ganger daglig

### Noen spørsmål om tid og tidsbruk:

En vanlig hverdag, omtrent hvor mye tid bruker du på å?

	Mindre enn 15 min	15-30 min	30-60 min	1-1 1/2 t	1 1/2-2 t	2-3 t	Mer enn 3 t
Lage middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lage alle dagens måltider (totalt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spise middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spise alle dagens måltider (totalt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

En vanlig lørdag eller søndag, omtrent hvor mye tid bruker du på å?

	Mindre enn 15 min	15-30 min	30-60 min	1-1 1/2 t	1 1/2-2 t	2-3 t	Mer enn 3 t
Lage middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lage alle dagens måltider (totalt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spise middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spise alle dagens måltider (totalt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*\*

Hvor ofte stemmer følgende påstander for deg?

	Aldri	Sjelden	Av og til	Ofte	Alltid
Jeg kjøper hurtigmat til middag fordi jeg verken har tid eller ork til å lage middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg har ikke tid til å tilberede de sunne måltidene som jeg ønsker å lage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vi har ikke tid til å sette oss ned sammen og spise middag som et familiemåltid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg spiser lunsjen min på kontoret, siden jeg ikke har tid til lunsjpause	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg har ikke tid til å trene så mye som jeg ønsker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte stemmer følgende påstander for deg?

	Aldri	Sjelden	Av og til	Ofte	Alltid
Jeg er under tidspress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg ønsker at jeg hadde mer tid til meg selv	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg føler jeg er under tidspress fra andre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg får ikke håndtere viktige ting riktig grunnet mangel på tid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg får ikke ordentlig søvn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg får ikke restituert meg ordentlig etter sykdom grunnet mangel på tid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er under så mye tidspress at det går ut over helsa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Så noen spørsmål om andre levevaner:

Hvor mange timer sover du vanligvis om natten på hverdagene?

Fyll inn antall timer. For eksempel 7,5

\_\_\_\_\_

Hvor mange timer sover du vanligvis om natten i helgene?

Fyll inn antall timer. For eksempel 7,5

\_\_\_\_\_

\*\*

Prøver du å slanke deg?

- Nei, vekten min er passe
- Nei, jeg trenger å gå opp i vekt
- Nei, men jeg trenger å gå ned i vekt
- Ja

Røyker du?

- Nei, jeg har aldri røykt regelmessig

- Nei, jeg har sluttet
- Ja, men ikke daglig
- Ja, daglig

Snuser du?

- Nei, jeg har aldri snust regelmessig
- Nei, jeg har sluttet
- Ja, men ikke daglig
- Ja, daglig

## De neste spørsmålene dreier seg om opplevelse av egen helse

Hvordan vil du beskrive din egen helse?

- Meget god
- God
- Verken god eller dårlig
- Dårlig
- Meget dårlig

I hvilken grad begrenser din helse dine hverdagslige gjøremål?

- I stor grad
- I noen grad
- I liten grad
- Ikke i det hele tatt

\*\*

Har du, eller har du hatt følgende?

	Ja	Nei	Vet ikke
Spiseforstyrrelser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Angst	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Depresjon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I løpet av de siste 7 dagene, hvor ofte har du?

	Hele tiden	Mye av tiden	Deler av tiden	Noe av tiden	Ikke i det hele tatt
Følt deg rolig og harmonisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hatt overskudd av energi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Følt deg nedfor og deprimert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Og så noen bakgrunnsspørsmål om deg og som deltar i undersøkelsen:**

Hvilket kjønn er du?

mann

kvinne

Hva er din fødselsdato?

Fyll inn dato. XX.XX.XX (for eksempel 24.10.76)

\_\_\_\_\_

Hvor høy er du (cm)?

cm

\_\_\_\_\_

Hvor mye veier du (kg)?

kg

\_\_\_\_\_

\*\*

Etnisk bakgrunn

	Ja	Nei	Vet ikke
Ble du født i Norge?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ble din mor født i Norge?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ble din far født i Norge?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hva er din sivile status?

Enslig

Gift

Samboer

Separert

Skilt

Annet

Hvor mange personer bor det i husholdningen din?

Fyll inn antall

\_\_\_\_\_

Hvor mange av personene som bor i husholdningen er barn?

Fyll inn antall

\_\_\_\_\_

\*\*

Hvilken utdanning har du? Marker høyeste fullførte utdanning

- Mindre enn 10 års grunnskole
- Grunnskole
- Videregående skole (inkl. gymnas/yrkesskole)
- Universitet eller høyskole (inntil 4 år)
- Universitet eller høyskole (mer enn 4 år)
- Annet

Hva er din hovedaktivitet?

- Arbeid, heltid
- Arbeid, deltid
- Hjemmeværende
- Sykemeldt
- Permisjon
- Uføretrygdet
- Under attføring/rehabilitering
- Student/skoleelev
- Arbeidsledig
- Annet

\*\*

Tusen takk for dine svar!

De er nå lagret.

Med vennlig hilsen  
Mastergradsstudentene  
Lisbeth Kvanvik,  
Therese Iversen og  
Linn Tryfoss  
Gerhardsen

Universitetet i Agder  
Institutt for folkehelse,  
idrett og ernæring



#### 4: Recipe booklet Cooking for Improved Health Intervention



# Oppskriftshefte

*«Matlaging For Bedre Helse»*

*Matlagingskurs høsten 2014*

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# Matlaging for bedre helse

## 2014

**Prosjektansvarlige:** Nina Cecilie Øverby og Elling Bere

**Fagansvarlige:** Mona Linge Tønnessen og Margrethe Rød

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## Innhold

Superenkelt langtidshevet flerbruksbrød.....	3
Fiskekraft .....	4
Grønnsakskraft .....	5
Hønekraft .....	6
Tradisjonell ertesuppe.....	7
Kylling med potet og pastinakk .....	8
Byggotto med kyllingkraft .....	9
Fiskekaker .....	10
Blomkål og brokkoli suppe .....	11
Coleslaw.....	12
Lammegryte med rotfrukt og byggryn .....	13
Kokte byggryn.....	14
Byggotto med reker.....	15
Lakseburger .....	16
FylDIG fiskesuppe .....	17
Råkostsalat .....	18
Fisk i løk og paprika saus .....	19
Minestroneuppe med bønner og byggryn.....	20
Grønnskålsalat med eple .....	21
Ovnsbakt torsk med cherrytomater .....	22
Rotfrukter med fisk .....	23
Ratatatouille .....	24
Potet- og purresuppe .....	25
Urtesalat med byggryn og reddiker.....	26
Lys lapskaus .....	27
Egne notater .....	28

## Superenkelt langtidshevet flerbruksbrød

Til ca 16 rundstykker eller to brødformer

- 500g siktet hvetemel
- 500g sammalt rug
- 5g(1 ½ ts) tørrgjær
- 9 dl vann
- Smør eller olje til å smøre formene

### *Fremgangsmåte:*

Begynn kvelden før du vil steke rundstykkene eller brødet. Bland alle de tørre ingrediensene godt i en bolle. Ha i vannet og rør til du får en klisset deig. Du trenger verken å elte eller kna. Smør formene du vil bruke og fordel deigen – husk å gi den god plass til å heve. Strø på godt med grovt mel og dekk til med plast så deigen ikke tørker ut. La formene stå på kjøkkenbenken til neste morgen- rundt 10 timers heving er bra. Skru ovnen på 210 grader, ta av plasten og sett rundstykkene eller brødene i den kalde ovnen. Rundstykker tar rundt 25 minutter, et brød ca. en time, avhengig av ovnen din. Bank på brødet med knoken – får du en hul lyd, er det ferdigstekt.

## Fiskekraft

- Fiskebein og fiskeavskjær (fra sei, torsk eller lyr)
- 1 gulrot
- Ca.50 sellerirot (eller stangselleri)
- ½ purre
- 1 fedd hvitløk
- 2 laubærblad
- 1 ts sort hel pepper
- 1 skive sitron

### *Fremgangsmåte:*

Skyll fiskebeinene og hodet godt og la det ligge i kalt rennende vann i ca. 30 minutter. Kutt alle grønnsakene i små biter (2-3 ca.) Ha fiskebeinene og grønnsakene over i ei stor gryte og dekk med vann. Kok opp og skum av. La kraften trekke under lokk i 30 minutter. Sett kraften til side i ca. 15 minutter og sil den av.

## Grønnsakskraft

- ½ fennikel
- 2 gulrøtter
- ½ purreløk
- ¼ sellerirot
- 1 kvast persille
- 1 løk
- 5 laurbærblad

### *Fremgangsmåte:*

Kutt alle grønnsakene i fine biter. Tilsett alt i en kjele. Fyll på dobbelt så mye vann som mengden grønnsaker. Skum av når det koker opp. La kraften koke uten lokk i 1 time. Sil av.

## Høsekraft

- 1 hel høne eller 2 kyllingskrog
- 2 gulrøtter
- 1 løk
- ½ purreløk
- 3 fedd hvitløk
- 3 laurbærblad
- ½ sellerirot
- 1 kvast persille
- 1 ts hel, sort pepper

### *Fremgangsmåte:*

Kutt alle grønnsakene i grove biter. Ha grønnsakene i en kjele sammen med kyllingskrogene/hønen. Tilsett vann slik at du dekker kyllingskrogene/hønen. Kok opp å ta bort skummet med en skje. La kraften småkoke uten lokk i 3 timer. Sil av.



# Tradisjonell ertesuppe

Til 4 porsjoner

- 1 stk. lettsaltet svineknokke
- 200 g gule erter
- 1 stk. løk, finhakket
- 1 stk. knollselleri (sellerirot), i terninger
- 2 stk. laurbærblad
- 2 l vann
- 2 stk. gulrot, i terninger
- 1 stk. purre, i ringer
- 4 stilk frisk timian

## *Fremgangsmåte:*

Legg erter i rikelig med vann over natten. Hell av vannet før du begynner med de andre forberedelsene. Legg svineknokke, erter, løk, selleri, laurbærblad og timian i en gryte. Hell på ca. 2 liter vann, og kok opp. Skum godt av, å la det småkoke i 3 timer. Skum godt av, og la det småkoke i 3 timer. Tilsatt gulrot og purre når det er 20 minutter igjen av koketiden. Ta opp svineknoken, skjær av kjøttet og legg det tilbake i suppen. Smak til suppen med grovmalt pepper og server med flatbrød og godt smør.

Tips: Legg den lettsaltede svineknoken i vann kvelden før så unngår du at suppa blir for salt. Du kan f.eks. også koke svineknoken kvelden i forveien med løk, selleri, laurbærblad og timian, og så koke den siste timen med de tilsatte ertene i dagen etter.

## Kylling med potet og pastinakk

### Til 4 porsjoner

- 600g potet
- 400g pastinakk eller gulrøtter
- 2 løk
- 2ss olje
- 2ts frisk hakket timian
- 4 kyllinglår
- Salt
- Pepper

### *Fremgangsmåte:*

Sett ovnen på 210grader. Del poteter pastinakk og/eller og løk i båter og ha dem i en ildfast form eller langpanne. Ha på oljen og litt salt og pepper og bland godt. Gni kyllinglårene inn med salt og pepper og legg dem oppå. Dryss over timian og sett det hele i ovnen. Stek i ca. 40 minutter til kyllingskinnet er sprøtt og gyllent og det kommer klar saft ut av låret om du stikker i det.

## Byggotto med kyllingkraft

### Til 4 porsjoner

- 2 dl byggryn
- Vann (til bløtlegging)
- 5 dl kyllingkraft
- 1 ss rapsolje
- 2 kyllingfileter
- 2 fedd hvitløk
- 2 gulrøtter
- 1 stilk stangselleri (eller 2 skiver sellerirot)
- ½ purre
- 200 g sukkererter
- 200 g sjampinjong/skogssopp
- 1 ts salt
- 2 ts timian/basilikum
- 1/2-1 ts grovmalt pepper

### *Fremgangsmåte:*

Legg byggrynene i bløt natten over for å svulle. Hell av bløtevannet og kok byggrynene i kyllingkrafta med litt salt. Sil av krafta og la byggrynene renne godt av seg. Skyll, rens og del opp grønnsakene. Varm oljen i en høy stekepanne. Stek kyllingstrimlene brune og sprø. Tilsett hvitløk, grønnsaker og sopp og brun dette litt. Tilsett salt og la alt surre videre ved svak varme til grønnsakene er knapt møre. Tilsett byggrynene og la retten surre i noen minutter til. Smak eventuelt til med mer krydder.

Tips: Dersom krafta er veldig kraftig kan den spes med litt vann for å unngå at byggryna blir klissete.

## Fiskekaker

### Til 4 porsjoner

- 600g fiskefilet, i biter
- 1-2 ts salt
- 1 most kokt potet
- 1 ts nykvernet pepper
- Matolje til steking

### Med smak av norden

- 1 ss hakket frisk persille
- 1 ss hakket frisk gressløk

### Med smak av Asia

- 1 hvitløksfedd
- 1-2 ts finhakket rød chili
- 1 ss hakket frisk koriander

### *Fremgangsmåte:*

Ha fisken i en kjøkkenmaskin og kjør den til den er slik du vil ha den. Noen liker finmalte fiskekaker, andre vil ha dem litt grovere. Tilsett den moste poteten, salt og pepper og kjør raskt i noen sekunder til, men ikke for lenge, da blir kakene seige. Ha i smakstilsetningene – enten de nordiske eller asiatiske. Prøvestek en teskje av farsen for å sjekke om den er passe krydret. Form farsen til fiskekaker og stek dem i litt olje på middelsvarme i ca. 4 minutter på hver side. Pass på at det ikke blir for fullt i stekepannen, og rør minst mulig på fiskekakene, da får du en fin steikeskorpe.

## Blomkål og brokkoli suppe

### Til 2-3 porsjoner

- 1 liten løk, i biter
- 1-2 fedd hvitløk, i biter
- 1-2 ss olje
- Ca. 300g blomkål/brokkoli i biter
- 5-6 dl grønnsakkraft
- ½ dl melk/matfløte
- ½ krm pepper
- Urter, finklipt

### *Fremgangsmåte:*

Skyll, rens og del opp grønnsakene. Varm oljen i en kjele. Tilsett løk og hvitløk og surr til den blir myk og blank. Tilsett grønnsakene og kraften. Ønsker du buketter/biter i suppen legger du til side de peneste og legger dem oppi etter at du har moset suppen. La suppen småkoke i minst 10 minutter og tilsett urter. Mos suppen med stavmikser eller i en matprosessor. Legg eventuelt oppi noen pene, rå biter/buketter av grønnsaker som kan koke i suppen i 2-3 minutter. Tilsett melk/fløte og smak til med litt pepper og eventuelt flere urter. Er suppen for tykk, kan du tilsette litt vann. Er den for tynn, kan den jevnes med maisjevner. Les anvisningen på pakken. Kok opp på nytt og server.

## Coleslaw

### Til 2-3 porsjoner

- 3 dl hvitkål, finsnittet
- 1 gulrot, revet
- ¼ løk, finhakket
- 1 lite eple, revet

### Dressing

- 2 ss lettmajones
- 2 ss yoghurt/lettrømme
- ½ ts italiensk salatkrydder(kan sløyfes)
- 1 ss eplesidereddik/sitronsaft
- 1 krm salt
- 1 krm pepper

### *Fremgangsmåte:*

Skyll, rens og del opp grønnsakene og eplet. Visp sammen ingrediensene til dressingen i en salatbolle og smak den godt til. Bland grønnsakene og eplet inn i dressingen, så lar salaten stå å trekke litt før du serverer den.

## Lammegryte med rotfrukt og byggryn

### Til 4 porsjoner

- 1 kg lammebøg eller grytekjøtt av lam, i biter
- 2 løk
- Matolje
- ¼ kg sellerirot
- ¼ kålrot
- 2 persillerøtter
- 1 pastinakk
- 2 gulrøtter
- 2 laurbærblad
- 1 ts hakket frisk oregano
- ½ liter vann

### *Fremgangsmåte:*

Del grønnsakene i terninger. Finhakk løken og begynn med å brune kjøtt og løk i olje i en stor gryte. Ha i grønnsakene og laurbærblad. Hell over vann, sett på lokket å la småkoke til kjøttet er mørt, ca. 1 ½ time. Sjekk gryta underveis, begynner det å bli tørt, har du i mer vann. Dryss litt frisk oregano og server gjerne med kokte byggryn.

## Kokte byggryn

### Til 4 porsjoner

- 3 dl byggryn(målt i tørr tilstand)
- 6 dl vann
- 1 ts salt

### *Fremgangsmåte:*

Legg grynene i bløt i rikelig med vann over natten. Hell av vannet og mål opp nytt vann når du skal koke grynene. Kok opp gryn og vann i en gryte sammen med saltet, sett på lokket og skru ned varmen. La det småkoke i ca. 40 minutter.



## Byggotto med reker

### Til 4 porsjoner

- 700g ferske reker
- Salt, timian
- Olivenolje
- ½ sitron
- Pepper
- 7 dl rå grønnsaker i biter (gulrøtter, brokkoli, sukkererter, vårløk). Vann tilsatt salt ved koking
- 2 dl byggryn
- ½ løk
- 1 ss rapsolje
- 1 ss smør
- 6 dl kraft fra grønnsakene og eventuelt litt vann

### *Fremgangsmåte:*

Rens og del grønnsakene i buketter/små biter. Kok opp vann og salt og legg i grønnsakene. La trekke i 2-3 minutter til de er knapt møre. Ta dem opp og ta vare på kokevannet. Skyll byggrynene i rennende kaldt vann (de trenger ikke bløtes).

Finhakk løk og surr myk i olje og smør. Tilsett byggrynene og la surre i smør/løk blandingen et par minutter. Spe med grønnsakkraft/vann, litt om gangen. Rør om under speeing.

Koketid 20-30 minutter. Smak til med salt, pepper, finhakket timian og eventuelt litt smør. Når byggrynene er ferdig kokte helles vannet av. Bland grønnsaker og reker sammen med byggrynene og tilsett gjerne saften av litt sitron.

Tips: Kan eventuelt bruke reker i lake, men bruk da mindre mengder. Reke skal ikke kokes, men has i byggottoen helt til slutt

# Lakseburger

## Til 4 porsjoner

- 500g laksefilet
- 2 ss hakket frisk persille eller koriander
- 2 vårløk
- Salt
- Pepper

### *Fremgangsmåte:*

Rens og hakk vårløk og skjær fisken i passelige biter. Ha alle ingrediensene i en kjøkkenmaskin og kjør raskt sammen. Pass på at farsen ikke blir til mos, burgerne er best hvis de er litt grove. Form burgerne og stek på middels høy varme i litt olje. Når du ser at de er stekt halvveis gjennom, snur du dem.

Tips: kan godt serveres på flerbruksbrød sammen med coleslaw.

## Fyldig fiskesuppe

### Til 2 porsjoner

- 1 gulrot, i tynne strimler
- 1 skive sellerirot, i tynne strimler
- ½ purre eller 2 vårløk, i tynne strimler
- 7 dl fiskekraft
- Jevning av 1dl lettmeik og 2 ss hvetemel
- 150g fiskefilet i terninger
- 8 pillede reker og/eller blåskjell
- 1 ss dill/gressløk, finklipt
- Sitronsaft

### *Fremgangsmåte:*

Skyll, rens og del opp grønnsakene. Kok gulrot, sellerirot og purre i fiskekraften til de er knapt møre, ca 5 minutter. Rist sammen en klumpfri jevning av melk og hvetemel i mikromaser eller i et lite glas med tett lokk og rør den inn i kraften. La suppen koke i 5 minutter. Tilsett fisken og la suppen trekke i ca 5 minutter. Smak til fiskesuppen med sitronsaft. Tilsett rekene og finklipt dill eller gressløk like før servering.

## Råkostsalat

### Til 4 porsjoner

- 1 stor gulrot
- 1 liten rødbete
- ½ eple
- 1 nepe
- 1 ts salt
- 1 ss eplesidereddik

### *Fremgangsmåte:*

Skyll og skrell grønnsakene og riv dem grovt på rivjern. Ha på eddik, dryss over salt og bland godt

## Fisk i løk og paprika saus

### Til 2 porsjoner.

- ½ løk, i skiver
- ½ paprika, i strimler
- 1 ss olje
- 1 ss hvetemel
- 1 dl fiskekraft
- 1 dl matfløte(kan brukes lett matfløte)
- 300-400g fiskefilet(tosk/uer/laks/sei) i serveringsstykker

### *Fremgangsmåte:*

Skyll, rens og del opp grønnsakene. Varm opp oljen i en kjele. Tilsett løk og paprika og surr til løken er myk og blank. Dryss over melet og bland godt. Spe med fiskekraft og vannfløte og kok opp. Legg fiskestykkene i sausen å la fisken trekke til den er ferdig, ca 10 minutter.

Tips: server fisken med en salat og kokte poteter.

# Minestronesuppe med bønner og byggryn

## Til 4-6 porsjoner

- 500 g bønner (valgfritt)
- 2 gulrøtter
- 1 løk
- 1 stilk stangselleri
- 1 hvitløk (behold skallet på, men ta bort stygt skall)
- 2 ss olivenolje til steking
- 1 liten tørket chili (eventuelt bruk litt chilipulver)
- 1 håndfull urter (f.eks. timian og basilikum)
- 1 boks hakkede tomater
- 100 g byggryn bløtlagt i 1 time
- Salt og pepper

## Persillegremolata:

- 25 g persille
- 2 dl olivenolje
- ½ ts salt
- Litt pepper
- Det gule av skallet til en økologisk sitron
- 25 g revet parmesan

## *Fremgangsmåte:*

Bløtlegg bønnene i rikelig med vann i 12 timer. Skyll deretter bønnene godt. Kok dem i 1 ½ liter usaltet vann (salt i vannet gjør bønnene seige) i ca. 1 time under lokk, til bønnene er møre. Når bønnene er ferdigkokte heller du fra halvparten av vannet. Sett til side 1/3 av bønnene, og kjør resten av bønnene til mos i en foodprocessor sammen med kokevannet.

Skjær gulrot, løk og selleri i litt grove biter. Stikk hull i hvitløken med en spiss kniv. Varm oljen i en passe stor suppekjele, og fres gulrot, løk, selleri, chili, urter og hvitløk i den varme oljen. Tilsett tomat og bønnemos. Ha i de bløtlagte byggrynene. La alt sammen koke i ca. 1 time for at alle smakene skal blande seg godt. Tilsett de hele bønnene du satte til side, og kok alt sammen i 15 minutter til. Smak til med salt og pepper. Bland alle ingrediensene til persillegremolataen i en mixer eller foodprocessor, til du har en tynn saus. Drypp persillegremolataen på toppen av suppen, og server med ferskt brød og smør.

## Grønnskålsalat med eple

### Til 4 porsjoner

- 3 stk eple uten kjerne og delt i tynne skiver
- 3 dl hakket grønnskål
- 1 stk finsnittet rødløk
- Kjernene av 1 stk granateple

### Dressing

- 1 ss grov dijonsennep
- 2 ss olje
- 1 ss hvitvinseddik
- Salt og pepper
- 30 g valnøttkjerner

### *Fremgangsmåte:*

Forvell grønnskålen raskt i usaltet vann i ca 1 min. la den renne godt av seg. Bland alle ingrediensene til salaten. Rør dressingen sammen og smak den til med salt og pepper. Bland dressingen godt inn i salaten og dryss med valnøttkjerner.

## Ovnsbakt torsk med cherrytomater

### Til 4 porsjoner

- 800 g torsk (benfri)
- 100 g ost (med mye smak)
- 1 ss grov sennep
- 2 ss matfløte
- 2 ss frisk gressløk (finsnittet)
- Salt
- Pepper

### Til tomatene:

- 10 stk cherrytomater
- 1 ss fersk basilikum
- Salt/pepper
- 1 ss olivenolje

### *Fremgangsmåte:*

Sett ovnen på 180 grader.

Fisk: Skjær torsken i passe serveringsstykker og legg dem i en smurt ildfast form. Dryss over salt og pepper. Bland ost, sennep, fløte, finhakket gressløk og fordel dette over fisken. Sett fisken inn i ovnen, ca. 15 minutter.

Tomater: smør et stykke tykk aluminiumsfolie og brett opp kantene litt. Del tomatene i 2 og legg dem på aluminiumen med snittflaten opp. Dryss salt, pepper, hakket basilikum og litt olivenolje over dem. Bak de i ovnen sammen med fisken de siste 10 minuttene.

Server fisken sammen med de bakte tomatene med ditt valgte tilbehør. Pynt hvis ønskelig med et par hele stilker gressløk.

Tips: kan serveres med poteter, fullkornspasta, byggryn.



## Rotfrukter med fisk

### Til 4 porsjoner

- 1 rødbete
- 2 gulrøtter
- ¼ kålrot
- 1 persillerot
- 4 poteter
- 4-5 hele hvitløksfedd med skallet på
- 2 ss olivenolje
- Salt
- Pepper
- 2 ts friske urter: rosmarin, timian eller oregano
- 600g fiskefilet i serveringsstykker (for eksempel torsk, sei eller lyr)

### *Fremgangsmåte:*

Sett ovnen på 210 grader. Skyll alle grønnsakene og skrell dem som må skrelles. Skjær dem i like store båter. Ha grønnsakene i en ildfast form eller langpanne sammen med urtene. Hell over oljen og bland godt. Sett rotgrønnsakene i ovnen. Vend litt om på dem av og til underveis. Etter ca. 30 minutter tar du ut formen og legger på fiskestykkene. Ha på litt salt og pepper og stek i ca. 10 minutter mer til fisken flaker seg når du trykker på den med en gaffel.

# Ratatatouille

## Til 4 porsjoner

- 2 hvitløksfedd
- 1 løk
- 1 squash
- 1 aubergine
- 1 rød paprika
- 300g cherrytomater
- 4 ss olivenolje
- Salt
- Pepper

### *Fremgangsmåte:*

Finhakk hvitløken. Rens løk, aubergine og paprika og skjær dem i biter. Sett ovnen på 210 grader. Ha alle grønnsakene i langpannen, hell over oljen og bland godt. Stek i ovnen i ca 30 minutter, vend forsiktig grønnsakene av og til.

Tips: Ha aluminiumsfolie over rotfruktene/fisken så det ikke tørker ut.

## Potet- og purresuppe

### Til 4 porsjoner

- 4 store poteter
- 1 hvitløksfedd
- 2 purreløk
- 1ss smør eller margarin
- 1 l hønsebuljong, grønnsaksbuljong eller grønnsakskraft
- Salt
- Pepper
- 1 dl fløte

### *Fremgangsmåte:*

Skrell potetene og skjær dem i biter. Finhakk hvitløken og skjær purreløken i skiver. Ha hvitløk og purreløk i en gryte sammen med 1ss smør eller margarin og la surre ved middels varme til grønnsakene er myke. Tilsett poteter og hell på buljongen/kraften. Kok på middels varme til potetene er møre og begynner å løse seg opp. Bruk en stavmikser eller blender og kjør blandingen til en glatt suppe. Hell den tilbake i gryta og tilsett fløten. Smak til med salt og pepper.

## Urtesalat med byggryn og reddiker

### Til 2-3 porsjoner

- 4 dl kokte byggryn
- 1 ss hakket frisk dill
- 1 ss hakket frisk persille
- ½ stilk stilkselleri
- 1 ss hasselnøtter
- 4 reddiker
- 1 ss olje
- 2 ts eplesidereddik
- Salt
- Pepper

### *Fremgangsmåte:*

Hakk selleri og hasselnøtter og skjær reddikene i skiver. Bland med dill og persille og hell olje og eddik over. Bland inn byggrynene og smak til med salt og pepper. Bland godt. Ha i en tett beholder med lokk.

## Lys lapskaus

### Stor porsjon

- Ingredienser:
- 1 salt svineknokke
- 1 løk (ev purre eller fennikel)
- 1 ss pepper (hel)
- vann
- 5-6 poteter (gjerne melne f. eks pimpernell)
- 4 gulrøtter
- 1-2 løk
- 250 g sellerirot
- 250 g kålrot
- Persillerot og pastinakk
- Purre, blomkål og/eller brokkoli som legges i de siste 5 min (kan sløyfes)
- Pepper
- Persille
- Flatbrød ( gjerne Mors eller bak selv☺)

### *Fremgangsmåte:*

Legg knoken i vann over natta eller et helt døgn. Bytt gjerne vann et par ganger. Legg knoken i en litt stor gryte og hell i vann til det dekker. Ha i en løk og pepper. Kok opp og sett ned på svak varme. La den koke i ca. 3-4 timer eller til kjøttet løsner fra beina. Løft ut knoken og sil av kraften. Bruk ca. halvparten av kraften til denne retten og bruk resten til en annen anledning (kan fryses). Riv kjøttet fra knoken og skjær det i passe store biter. Ha kraften i gryta og tilsett ca. 3 dl vann, så du unngår at suppen blir for salt. Kok opp og tilsett de oppkuttete grønnsakene og potetene. La det koke til alt er mørt, ca. 15 minutter. Ha i kjøtt og eventuelt blomkål og brokkoli, kok i ytterligere 5 minutter. Smak til med pepper. Dryss over persille. Server med flatbrød.

Tips: knoken kan gjerne kokes dagen i forveien.



## 5: Approval the Norwegian Data Inspectorate Healthy and Sustainable Lifestyle

Elling Bere

Institutt for folkehelse, idrett og ernæring Universitetet i Agder

Serviceboks 422

4604 KRISTIANSAND S

Vår dato: 26.03.2014

Vår ref: 37459 / 3 / LT

Deres dato:

Deres ref:

## TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 04.02.2014. Meldingen gjelder prosjektet:

37459

Behandlingsansvarlig

Daglig ansvarlig

*Sunn og bærekraftig livsstil (SBL) og barns matmot*

*Universitetet i Agder, ved institusjonens øverste leder*

*Elling Bere*

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

Personvernombudets tilråding forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 30.06.2018, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Katrine Utaaker Segadal

Lis Tenold

Kontaktperson: Lis Tenold tlf: 55 58 33 77

Vedlegg: Prosjektvurdering

*Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.*

*Avdelingskontorer / District Offices:*

*OSLO: NSD, Universitetet i Oslo, Postboks 1055 Blindern, 0316 Oslo. Tel: +47-22 85 52 11. nsd@uio.no*

*TRONDHEIM: NSD, Norges teknisk-naturvitenskapelige universitet, 7491 Trondheim. Tel: +47-73 59 19 07. kyrre.svarva@svt.ntnu.no*

*TROMSØ: NSD, SVF, Universitetet i Tromsø, 9037 Tromsø. Tel: +47-77 64 43 36. nsdmaa@sv.uit.no*





Viktige risikofaktorer for den globale sykdomsbyrden er relatert til kosthold, fysisk inaktivitet og miljøutfordringer. Det helhetlige konseptet SBL vil kunne fremme både helse og miljø. Barnehager er valgt som inklusjonsheter. Studien består av to phd-prosjekter (med henholdsvis Sissel H. Helland og Helga Bjørnarå som stipendiater) og av følgende delstudier: en metodestudie, en tverrsnittsundersøkelse (inngår i begge studiene) og en intervensjonsstudie. Hensikten med studien er å: (I) Utvikle og kvalitetsteste et nytt spørreskjema, (II) Kartlegge tilslutning til konseptet HSL blant småbarnsforeldre i Agder, samt mat- og spiseatferd blant deres barn født i 2012 og (III) Gjennomføre en intervensjon for å fremme et sunt og variert kosthold blant småbarn for å forebygge overvekt og matneofobi..

Det gis skriftlig informasjon om alle deler av prosjektet og innhentes skriftlig samtykke. Personvernombudet finner skrивene mottatt henholdsvis 17.02. (studie 1) og 28.02. (studie 2 og 3) tilfredsstillende.

Det behandles sensitive personopplysninger om etnisk bakgrunn eller politisk/filosofisk/religiøs oppfatning, helseforhold, .

Personvernombudet legger til grunn at forsker etterfølger Universitetet i Agder sine interne rutiner for datasikkerhet. Dersom personopplysninger skal sendes elektronisk eller lagres på mobile enheter, bør opplysningene krypteres tilstrekkelig.

Forventet prosjektslutt er 30.06.2018. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å slette direkte personopplysninger (som navn/koblingsnøkkel) og slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. bosted/arbeidssted, alder og kjønn).

6: Request form to the kindergartens and parents Healthy and Sustainable Lifestyle



## Forespørsel om deltakelse i forskningsprosjektet

### *Sunn og bærekraftig livsstil*

#### **Bakgrunn og hensikt**

Dette er en forespørsel til deg om å delta i en forskningsstudie som gjennomføres i Agder, blant småbarnsforeldre med barn som går i barnehage. Studien kartlegger foreldre/foresattes spise- og aktivitetsatferder, samt mat- og spiseatferd blant deres barn. Forskningsresultatene skal brukes til senere kartlegginger og helsefremmende tiltak, som kan bidra til en sunnere befolkning og en sunnere klode. Forskning viser at livsstilsvaner etableres tidlig, og foreldrene spiller en svært viktig rolle for barnas spise- og aktivitetsvaner. Ut fra et familieperspektiv har vi derfor valgt å rette oss mot småbarnsforeldre. Det er en forskergruppe ved Universitetet i Agder, Institutt for folkehelse, idrett og ernæring, som gjennomfører studien. Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste, og er finansiert av Universitetet i Agder.

#### **Hva innebærer studien?**

For å delta i studien må barnet ditt være født før 2012. Studien består av to faser som begge skal gjennomføres våren 2014. I den første fasen blir du spurt om å fylle ut et elektronisk spørreskjema som vil ta omtrent 50 minutter å besvare. Etter to uker blir du bedt om å fylle ut det samme skjemaet på nytt. Her er det viktig at du *begge gangene fyller ut spørreskjemaet samme dagen som du får tilsendt e-posten med link til skjemaet*, slik at det går nøyaktig to uker mellom de to besvarelsene dine. Hensikten er å teste kvaliteten på spørreskjemaet, siden det er et nytt skjema som ikke har blitt brukt tidligere. Spørreskjemaet er todelt hvor første del omhandler deg, mens andre del retter seg mot barnet ditt. I den første delen spørres det hovedsakelig om dine kost-, aktivitets- og transportvaner. Spørreskjemaet inneholder også spørsmål om helse og livskvalitet, samt andre helseatferder som søvnvaner og røykevaner. I tillegg spørres det om kjønn, yrke, utdannelse, etnisk bakgrunn, sivilstatus, graviditet, høyde og vekt. I den andre delen som omhandler barnet, spørres det i hovedsak om mat- og spiseatferd. Spørreskjemaet kartlegger også foreldres/foresattes matingspraksis. I tillegg spørres det om barnets kjønn, høyde og vekt ved fødsel, og ved 15-18 måneders alder.

I den andre fasen, kort tid etter at du har besvart spørreskjemaet for andre gang, ønsker vi å kartlegge kostholdet ditt noe mer grundig, samt å måle det fysiske aktivitetsnivået ditt og kroppssammensetningen din. Dette er en del av arbeidet med å kvalitetsteste spørreskjemaet. For å kartlegge kostholdet ditt vil du bli bedt om å svare på to kostholdsintervju per telefon, med ca 4 ukers mellomrom. Hvert intervju tar 25-40 minutter å gjennomføre. For å måle aktivitetsnivået ditt vil du bli bedt om å gå med aktivitetsmåler i syv sammenhengende dager. I tillegg ønsker vi å måle kroppssammensetningen din, høyde og vekt. Disse målingene tar ca 20 minutter å gjennomføre. Dersom du er gravid, måler vi ikke kroppssammensetningen din, og dersom du har nikkellallergi fraråder vi deg å gjennomføre målingen av ditt fysiske aktivitetsnivå.



## **Mulige fordeler og ulemper**

Studien vil ikke medføre ulemper for deg eller ditt barn, utover tiden det tar å fylle ut spørreskjemaet og å gjennomføre målingene. Når det gjelder måling av kroppssammensetning, vil dette gjøres på Spicheren treningssenter (rett ved Universitetet i Agder), noe som vil ta litt ekstra tid. Her vil du også få utdelt aktivitetsmåleren og få en instruksjon i bruken av den.

Fordelen med studien er at du, dersom du gjennomfører alle delene, vil få tilbud om en kortfattet «helse rapport» i etterkant basert på dine resultater. Rapporten gir deg en tilbakemelding på kroppssammensetningen din, samt på kostholdet og aktivitetsnivået ditt. De to siste sees i sammenheng med nasjonale anbefalinger og resultater fra tidligere nasjonale befolkningsstudier. Du kan selv velge om du ønsker en slik rapport, og i så fall hvilke av disse tre områdene du ønsker en tilbakemelding på. Det behøver ikke å være alle. I tillegg får du en gratis prøvetime på Spicheren treningssenter som du kan benytte når du selv måtte ønske.

Studien vil også gi oss i forskergruppen viktig kunnskap om kvaliteten av det nye spørreskjemaet. Dersom skjemaet holder ønskelig kvalitet vil det brukes i fremtidige forskningsstudier, og dermed bidra til økt kunnskap som grunnlag for utvikling av nye tiltak som kan fremme både helse og miljø.

## **Hva skjer med informasjonen om deg?**

Informasjonen som registreres om deg skal kun brukes slik som beskrevet i hensikten med studien. Alle opplysningene, i alle deler av studien, vil bli behandlet uten navn og fødselsnummer eller andre direkte gjenkjennende opplysninger. En kode knytter deg og ditt barn til deres opplysninger gjennom en navneliste. Det er kun forskningsteamet knyttet til prosjektet som har adgang til navnelisten og som kan finne tilbake til deg eller barnet ditt. Det vil ikke være mulig å identifisere hverken deg eller barnet i resultatene av studien, når disse publiseres. Ved prosjektslutt, juni 2018, vil datamaterialet anonymiseres. Det innebærer at all kontaktinformasjon og koden som knytter denne informasjonen til dataene vil bli slettet. Dermed vil det ikke lenger være mulig å knytte datafilen til deltakerne, heller ikke for prosjektgruppen.

## **Frivillig deltakelse**

Det er frivillig å delta i studien. Du kan når som helst og uten å oppgi noen grunn trekke ditt samtykke til å delta i studien, uten konsekvenser for deg eller ditt barn. Dersom du ønsker å delta, klikk på lenken i bunnen av siden.

Med vennlig hilsen

Stipendiat Helga Birgit Bjørnara

Tlf: 38141124

E-post: [helga.birgit.bjornara@uia.no](mailto:helga.birgit.bjornara@uia.no)



UNIVERSITETET I AGDER



## Forespørsel om deltakelse i forskningsprosjektet

### *Sunn og bærekraftig livsstil*

#### **Bakgrunn og hensikt**

Dette er en forespørsel til barnehagen om å delta i en forskningsstudie som gjennomføres i Agder, blant småbarnsforeldre med barn som går i barnehage. Studien kartlegger foreldre/foresattes spise- og aktivitetsatferder, samt mat- og spiseatferd blant deres barn. Forskningsresultatene skal brukes til senere kartlegginger og helsefremmende tiltak som kan bidra til en sunnere befolkning og en sunnere klode. Forskning viser at livsstilsvaner etableres tidlig, og foreldrene spiller en svært viktig rolle for barnas spise- og aktivitetsvaner. Videre vet vi at en stor andel barn i målgruppen går i barnehage, noe som gjør barnehager til en egnet arena for å nå mange småbarnsforeldre. Ut fra et familieperspektiv har vi derfor valgt å rette oss mot småbarnsforeldre, via barnehager. Det er en forskergruppe ved Universitetet i Agder, Institutt for folkehelse, idrett og ernæring, som gjennomfører studien. Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste, og er finansiert av Universitetet i Agder.

#### **Hva innebærer studien?**

Barnehagens rolle blir å dele ut et tilsendt informasjonsbrev til foreldre med barn født før 2012, og å anbefale foreldrene å delta i studien. I tillegg er det ønskelig at barnehagen legger ut kort informasjon i uke-/månedspan som en ekstra distribusjonskanal.

Foreldre/foresatte som inviteres til deltakelse i studien må ha et barn født før 2012. Studien består av to faser som begge skal gjennomføres våren 2014. I den første fasen blir foreldrene spurt om å fylle ut et elektronisk spørreskjema som vil ta omtrent 50 minutter å besvare. Etter to uker blir de bedt om å fylle ut det samme skjemaet på nytt. Hensikten er å teste kvaliteten på spørreskjemaet, siden det nylig er utviklet og ikke har blitt brukt tidligere. I den første delen spørres det hovedsakelig om foreldres/foresattes kost-, aktivitets- og transportvaner. Spørreskjemaet inneholder også spørsmål om helse og livskvalitet, samt andre helseatferder og sosio-demografiske variabler. I den andre delen som omhandler barnet, spørres det i hovedsak om barnets mat- og spiseatferd, i tillegg til barnets kjønn, høyde og vekt.

I den andre fasen ønsker vi å kartlegge foreldrenes kosthold noe mer grundig, samt å måle det fysiske aktivitetsnivået og kroppssammensetning. Dette er en del av arbeidet med å kvalitetsteste spørreskjemaet. For å måle kvalitet på kostholdet vil foreldre/foresatte bli bedt om å svare på to kostholdsintervju per telefon, med ca 4 ukers mellomrom. For å måle aktivitetsnivået vil de bli bedt om å gå med aktivitetsmåler i syv sammenhengende dager. I tillegg ønsker vi å måle kroppssammensetning, høyde og vekt.

#### **Mulige fordeler og ulemper**

Studien vil ikke medføre ulemper for barnehagen, utover tiden det tar å distribuere informasjonsbrevet til foreldrene samt å anbefale foreldrene å delta. Fordelen for barnehagen er at dere får tilbud om ett foredrag for ansatte som omhandle relevante tema innenfor kosthold og fysisk aktivitet.



Studien vil ikke medføre ulemper for foreldre/foresatte eller barn, utover tiden det tar å fylle ut spørreskjemaet og å gjennomføre målingene. Fordelen med studien er at de foreldrene som gjennomfører alle delene, vil få tilbud om en kortfattet «helse rapport» i etterkant, basert på sine resultater. Rapporten gir tilbakemelding på kosthold og aktivitetsnivå sammenliknet med nasjonale anbefalinger og gjennomsnittet i befolkningen for øvrig, i tillegg til de mest relevante resultatene fra målingen av kroppssammensetning. I tillegg vil foreldrene få en gratis prøvetime på Spicheren treningssenter.

Studien vil gi oss i forskergruppen en viktig tilbakemelding på kvaliteten av det nye spørreskjemaet. Dersom skjemaet holder ønskelig kvalitet vil det brukes i fremtidige forskningsstudier, og dermed bidra til økt kunnskap som grunnlag for utvikling av nye tiltak, som kan fremme både helse og miljø.

### **Hva skjer med informasjonen som samles inn?**

Informasjonen som registreres skal kun brukes slik som beskrevet i hensikten med studien. Alle opplysningene vil bli behandlet uten navn og fødselsnummer eller andre direkte gjenkjennerende opplysninger. En kode knytter foreldre/foresatte og barn til deres opplysninger gjennom en navneliste. Det er kun forskningsteamet knyttet til prosjektet som har adgang til navnelisten og som kan finne tilbake til foreldre eller barn. Det vil ikke være mulig å identifisere noen av partene når resultatene av studien publiseres. Ved prosjektslutt, juni 2018, vil datamaterialet anonymiseres. Det innebærer at all kontaktinformasjon og koden som knytter denne informasjonen til dataene vil bli slettet. Dermed vil det ikke lenger være mulig å knytte datafilen til deltakerne, heller ikke for prosjektgruppen.

### **Frivillig deltakelse**

Det er frivillig å delta i studien. Daglig leder ved Læringsverkstedet Barnehager har takket ja til deltakelse på vegne av kjedens barnehager i regionen. Barnehagene vil få tilsendt informasjonsbrevet som vi ønsker distribuert til foreldrene.

Prosjektet ledes av professorene Elling Bere og Nina C. Øverby. Dersom du har spørsmål til studien, kan du kontakte:

Stipendiat Helga Birgit Bjørnara

Tlf: 38141124

E-post: [helga.birgit.bjornara@uia.no](mailto:helga.birgit.bjornara@uia.no)

## 7: Consent Healthy and Sustainable Lifestyle



## Velkommen til samtykkeskjema for forskningsprosjektet Sunn og bærekraftig livsstil!

Jeg bekrefter å ha mottatt informasjon om studien, og jeg er villig til å delta. Hvis jeg ønsker tilleggsinformasjon vet jeg hvem jeg skal kontakte. Jeg er informert om at studien er frivillig og at jeg kan trekke meg når som helst uten konsekvenser.

Ja, jeg samtykker til deltakelse i studien

Siden vi fraråder gravide og de med pacemaker å gjennomføre kroppsanalysen med analyseverktøyet InBody, og de med nikkelallergi å gjennomføre aktivitetsmålingen med SenseWear Armband, etterspør vi informasjon om dette her.

Er du kvinne eller mann?

Kvinne

Mann

Er du gravid?

Ja

Nei

Vet ikke

Har du pacemaker?

Ja

Nei

Har du nikkelallergi?

Ja

Nei

### Kontaktinformasjon

Mitt fornavn:

---

Mitt etternavn:

---

E-postadresse:

---

Vennligst gjenta e-postadresse:

---

Mobilnummer:

---

Gatenavn og nummer:

---

Postnummer og sted:

---

Navnet på barnehagen hvor mitt barn går:

---

Ønsker du en kortfattet helse rapport i etterkant, basert på resultatene dine?

- Ja  
 Nei

På hvilke resultater ønsker du tilbakemelding? Her kan du krysse av for alle eller noen:

- Fysisk aktivitetsnivå  
 Kosthold  
 Kroppssammensetning

Tusen takk for at du ønsker å delta i studien!

Du vil innen kort tid få tilsendt en e-post med link til selve spørreskjemaet for første gangs besvarelse. I tillegg tar vi kontakt med deg for å avtale tid for oppmøte på Spicheren treningscenter og gjennomføring av de aktuelle målingene.

Vennlig hilsen

Stipendiat Helga Birgit Bjørnarå

## 8: Questionnaire Healthy and Sustainable Lifestyle

Takk for at du tar deg tid til å delta i forskningsstudien Barns matmot, som pågår blant småbarnsforeldre i Aust- og Vest-Agder. Studien inngår som en del av to doktorgradsprosjekt ved UiA og ledes av professorene Elling Bere og Nina Øverby.

Familien bestemmer selv hvem av foreldrene/de foresatte som besvarer spørreskjemaet. Den som fyller ut skjemaet bes gjøre det ut fra det som stemmer for seg selv og barnet født i 2012. Spørreskjemaet består av to deler og vil ta ca 50 min å besvare. Første del dreier seg i hovedsak om dine kost- og aktivitetsvaner, samt helse og livskvalitet, mens du i andre del får spørsmål om barnets mat- og spisevaner.

Sett deg gjerne et sted hvor du kan sitte uforstyrret, les spørsmålene nøye og svar så godt du kan. Lykke til!  
Trykk på neste for å komme i gang.

**TUSEN TAKK FOR AT DU DELTAR!**

Vennlig hilsen

Doktorgradsstipendiat Helga Birgit Bjørnarå

Doktorgradsstipendiat Sissel H. Helland

## Først vil vi stille deg noen spørsmål om mat, drikke og spisevaner:

Hvor ofte spiser du:

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag
Frokost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lunsj	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kveldsmat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mellommåltider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte drikker du?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Melk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fruktjuice uten tilsatt sukker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vann	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drikker med tilsatt sukker (eks. brus, saft, iste, iskaffe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drikker med kunstig søtning (eks. lettbrus, lettsaft, lett iste)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kaffe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Te	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alkohol til måltider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alkohol utenom måltider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte spiser du?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Typisk nordiske frukter (eple, pære, plomme)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Andre frukter (eks. banan, appelsin, kiwi, ananas)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jordbær og andre dyrkede bær	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ville bær (eks. blåbær, tyttebær, multer)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Røtgrønnsaker (eks. gulrot, kålrot, løk)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kål (eks. blomkål, brokkoli, rosenkål, grønnkål)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Andre grønnsaker (eks. tomat, agurk, paprika, salat)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Belgfrukter (eks. erter, bønner, kikerter)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Usaltede nøtter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte spiser du?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Poteter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ris	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pasta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte spiser du følgende varmrett?

	Aldri	Mindre enn 1 g/mnd	1-3 g/mnd	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag
Viltkjøtt (elg, reinsdyr, rådyr)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rent kjøtt av eks. okse, svin, lam, kalkun, kylling (ikke viltkjøtt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mager fisk (torsk, sei, hyse)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fet fisk (makrell, sild, kveite)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laks og/eller ørret	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annen sjømat (eks. reker, krabber, blåskjell)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte spiser du?

	Aldri	Mindre enn 1 g/mnd	1-3 g/mnd	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag
Suppe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gryterett (eks. lapskaus, frikassè, fiskegryte, vegetargryte, Toro-gryte)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Nudler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pizza	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ferdigretter fra eks. Findus, Fjordland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pølser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pommes frites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hamburger/karbonade/kjøttkake/kjøttpudding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kjøttdeigbaserte middagsretter (eks. taco, pasta)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiskepinner/fiskekake/fiskepudding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte spiser du?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Fint brød/rundstykker/loff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grovt brød/rundstykker (minst 50% sammalt mel/hele korn og kjerner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grove knekkebrød	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Havregrøt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Musli/havregryn uten tilsatt sukker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Andre frokostblandinger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte spiser du?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Salte kjeks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Søte kjeks/cookies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Søtt bakverk (eks. kaker, boller)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salt snacks (eks. chips, ostepop, salte nøtter)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Søtsaker (eks. smågodt, sjokolade)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte salter du maten du spiser?

- Aldri
- Mindre enn 1 gang/uke
- 1 gang/uke
- 2 ganger/uke
- 3 ganger/uke
- 4 ganger/uke
- 5 ganger/uke
- 6 ganger/uke
- Hver dag
- Flere ganger daglig

### I hvilken grad er du enig i følgende påstander?

Helt uenig ..... Verken enig eller uenig ..... Helt enig

Jeg prøver stadig ny og ulik type mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg stoler ikke på ukjent mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hvis jeg ikke kjenner til hva som er i maten, vil jeg ikke smake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er redd for å spise ting jeg ikke har spist før	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er veldig kresen på hva slags mat jeg vil spise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg spiser nesten all slags mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag
Spiser du på restaurant/kafè	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spiser du mat fra fast-food restaurant (eks. McDonalds, gatekjøkken)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spiser du mat kjøpt på bensinstasjon/stor-kiosk (eks. 7-eleven, Narvesen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Har du hovedansvar for matlagingen hjemme?

- Ja
- Nei
- Ansvaret er delt

### Hvor ofte?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag
Kutter du opp grønnsaker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kutter du opp frukt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lager du middag fra bunnen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor mye salt tilsetter du i de hjemmelagede middagsrettene?

- Mindre enn det som står i oppskriften
- Mengden som står i oppskriften
- Mer enn det som står i oppskriften
- Bruker aldri oppskrift

### Hvor ofte lager du?

	Aldri	Mindre enn 1 g/måned	Månedlig, men mindre enn 1 g/uke	1 g/uke	Mer enn 1 g/uke
Amerikansk pizza (tykk bunn og mye fyll)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Italiensk pizza (tynn bunn og begrenset med fyll)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Når du lager pizza, hvor ofte er?

	Alltid	Ofte	Av og til	Sjelden	Aldri
Sausen hjemmelaget (ikke fra glass/pose)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bunnen hjemmelaget (ikke fra pose/rull)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte baker du?

	Aldri	Mindre enn 1 g/måned	Månedlig, men mindre enn 1 g/uke	1 g/uke	Mer enn 1 g/uke
Fint brød/rundstykker (0-25% sammalt mel/hele korn og kjerner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Halvgrovt brød/rundstykker (25-50% sammalt mel/hele korn og kjerner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grovt brød/rundstykker (50-75% sammalt mel/hele korn og kjerner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ekstra grovt brød/rundstykker (75-100% sammalt mel/hele korn og kjerner)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Når du baker brød, hvor ofte bruker du?

	Alltid	Ofte	Av og til	Sjelden	Aldri
Brød-mix	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gjær eller andre hevemidler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hjemmelaget surdeig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Hvor ofte lager du?

	Aldri	Mindre enn 1 g/måned	Månedlig, men mindre enn 1 g/uke	1 g/uke	Mer enn 1 g/uke
Suppe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gryterett som eks. frikassè, lapskaus, fiskegryte, vegetargryte, Toro-gryte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Når du lager suppe eller andre "gryteretter", hvor ofte bruker du?

	Alltid	Ofte	Av og til	Sjelden	Aldri
Pose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buljong (industrifremstilt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hjemmelaget kraft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### I hvilken grad er du enig i følgende påstander?

	Helt enig	Delvis enig	Verken enig eller uenig	Delvis uenig	Helt uenig
Jeg kjøper ofte lokalprodusert mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg kjøper ofte sesongens råvarer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg kjøper ofte økologisk mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg prøver å spise mindre animalske matvarer (kjøtt, fisk, meieriprodukter og egg) for å spare miljøet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg velger bevisst matvarer som er miljømerket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er flink til å kildesortere husholdningsavfallet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg kaster nesten aldri mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg dyrker spiselige planter hjemme til eget forbruk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg sanker spiselige ville planter/bær/sopp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg jakter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg fisker fisk/skalldyr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### I hvilken grad stemmer følgende påstander for deg?

Stemmer ikke i det \_\_\_\_\_ Stemmer \_\_\_\_\_ Stemmer \_\_\_\_\_



	hele tatt	til dels	helt
Å nyte mat er en av de viktigste gledene i livet mitt	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Jeg vil heller spise mitt favorittmåltid enn å se mitt favoritt TV-program	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Jeg tenker på mat på en positiv og forventningsfull måte	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Penger brukt på mat er vel anvendte penger	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Dersom jeg kunne tilfredsstillte mine ernæringsmessige behov trygt, billig og uten sult ved å ta en daglig pille, ville jeg gjøre dette	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

## Så noen spørsmål om transportvaner:

Hvor langt er det fra hjemmet ditt til?  
Fyll inn antall km. For eksempel 3,4

Arbeidsplassen/studiestedet?

\_\_\_\_\_

Barnehagen

\_\_\_\_\_

Nærmeste matvarebutikk

\_\_\_\_\_

Nærmeste sentrum

\_\_\_\_\_

Har du egen sykkel?

- Ja  
 Nei

Har du el-sykkel?

- Ja  
 Nei

Hvor mange dager i uka er du på jobb/skole (ikke hjemmekontor)?

\_\_\_\_\_

Hvordan kommer du deg **som oftest** til og fra i sommerhalvåret når du?

	Til fots	Sykkle/el-sykkle	Bil/motorsykkle/moped/skuter	Offentlig transport	Ikke aktuelt
Skal på jobb/studere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handler matvarer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handler andre varer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transporterer deg selv på fritiden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transporterer barn til/fra barnehagen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvordan kommer du deg **som oftest** til og fra i vinterhalvåret når du?

Til fots	Sykkle/el-sykkle	Bil/motorsykkle/moped/skuter	Offentlig transport	Ikke aktuelt
----------	------------------	------------------------------	---------------------	--------------

Skal på jobb/studere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handler matvarer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handler andre varer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transporterer deg selv på fritiden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transporterer barn til/fra barnehagen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Noen spørsmål om fysisk aktivitet

Hvor ofte er du fysisk aktiv i minst 30 minutter totalt i løpet av dagen (i minst 10 minutter om gangen)? Med fysisk aktivitet menes **all aktivitet** hvor hjertet ditt slår forttere enn vanlig og hvor du blir andpusten innimellom, for eksempel rask gange.

- Aldri
- Mindre enn 1 g/uke
- 1 g/uke
- 2 g/uke
- 3 g/uke
- 4 g/uke
- 5 g/uke
- 6 g/uke
- Hver dag

Hvor ofte **trener** du eller driver med idrett?

	Aldri	Mindre enn 1 g/uke	1 g/uke	2 g/uke	3 g/uke	4 g/uke	5 g/uke	6 g/uke	Hver dag	Flere ganger daglig
Utendørs (alle typer idrett)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innendørs (alle typer idrett, i gymsal, i treningsstudio, i basseng etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte driver du med **utendørs aktiviteter** i sommerhalvåret (eks. hagearbeid, bading/svømming, lek, vedstabling)?

- Aldri
- Mindre enn 1 g/måned
- Månedlig, men mindre enn 1 g/uke
- 1 g/uke
- Mer enn 1 g/uke

Hvor ofte driver du med **utendørs aktiviteter** i vinterhalvåret (eks. snømåking, aking, gå på skøyter)?

- Aldri
- Mindre enn 1 g/måned
- Månedlig, men mindre enn 1 g/uke
- 1 g/uke

Mer enn 1 g/uke

De to neste spørsmålene omhandler deg OG din familie- hvor ofte dere er på tur sammen:

Hvor ofte er du og din familie på tur i sommerhalvåret?

	Aldri	Mindre enn 1 g/måned	Månedlig, men mindre enn 1 g/uke	1 g/uke	Mer enn 1 g/uke
I nærmiljøet (ikke i grøntområder)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I naturen (eks. i skogen, på fjellet, ved sjøen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I andre grøntområder (eks. parker)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte er du og din familie på tur i vinterhalvåret?

	Aldri	Mindre enn 1 g/måned	Månedlig, men mindre enn 1 g/uke	1 g/uke	Mer enn 1 g/uke
I nærmiljøet (ikke i grøntområder)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I naturen (eks. i skogen, på fjellet, ved sjøen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I andre grøntområder (eks. parker)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I hvilken grad stemmer følgende påstander om fysisk aktivitet (generelt) for deg?

	Stemmer ikke i det hele tatt	-	-	Stemmer til dels	-	-	Stemmer helt
Jeg liker fysisk aktivitet svært godt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Det er moro å drive med fysisk aktivitet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg synes fysisk aktivitet er kjedelig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er ikke opptatt av fysisk aktivitet i det hele tatt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg vil beskrive fysisk aktivitet som svært motiverende	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg synes fysisk aktivitet er ganske fornøylig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mens jeg er fysisk aktiv, tenker jeg på hvor mye jeg liker det	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I hvilken grad er du enig i følgende påstander?

	Helt enig	Delvis enig	Verken enig eller uenig	Delvis uenig	Helt uenig
Jeg tar trappene i stedet for heisen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg tar trappene i stedet for rulletrappa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Spørsmål om dine skjermvaner:

På fritiden, omtrent hvor mange timer om dagen ser du vanligvis på TV/film?

Ingen Mindre enn 30 min 30 min 1 t 1 t og 30 min 2 t 2 t og 30 min 3 t 3 t og 30 min 4 t eller mer

På hverdagene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I helgene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte spiser du mens du ser på TV/film (både jobb og fritid)?

- Aldri
- Mindre enn 1 g/uke
- 1 g/uke
- 2 g/uke
- 3 g/uke
- 4 g/uke
- 5 g/uke
- 6 g/uke
- Hver dag
- Flere ganger daglig

På fritiden, omtrent hvor mange timer om dagen bruker du vanligvis PC/nettbrett/smarttelefon/spillkonsoll?

Ingen Mindre enn 30 min 30 min 1 t 1 t og 30 min 2 t 2 t og 30 min 3 t 3 t og 30 min 4 t eller mer

På hverdagene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I helgene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte spiser du mens du bruker PC/nettbrett/smarttelefon/spillkonsoll (både jobb og fritid)?

- Aldri
- Mindre enn 1 g/uke
- 1 g/uke
- 2 g/uke
- 3 g/uke
- 4 g/uke
- 5 g/uke
- 6 g/uke
- Hver dag
- Flere ganger daglig

## Noen spørsmål om tid og tidsbruk:

En vanlig hverdag, omtrent hvor mye tid bruker du på å?

	Mindre enn 15 min	15 min	30 min	1 t	1 t og 30 min	2 t	2 t og 30 min	3 timer eller mer
Lage middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lage alle dagens måltider (totalt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spise middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spise alle dagens måltider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(totalt)

       

En vanlig lørdag eller søndag, omtrent hvor mye tid bruker du på å?

	Mindre enn 15 min	15 min	30 min	1 t	1 t og 30 min	2 t	2 t og 30 min	3 timer eller mer
Lage middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lage alle dagens måltider (totalt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spise middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spise alle dagens måltider (totalt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte stemmer følgende påstander for deg?

	Aldri	Sjelden	Av og til	Ofte	Alltid
Jeg kjøper hurtigmat til middag fordi jeg verken har tid eller ork til å lage middag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg har ikke tid til å tilberede de sunne måltidene som jeg ønsker å lage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vi har ikke tid til å sette oss ned sammen og spise middag som et familiemåltid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg spiser lunsjen min på kontoret, siden jeg ikke har tid til lunsjpause	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg har ikke tid til å trene så mye som jeg ønsker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hvor ofte stemmer følgende påstander for deg?

	Aldri	Sjelden	Av og til	Ofte	Alltid
Jeg er under tidspress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg ønsker at jeg hadde mer tid til meg selv	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg føler jeg er under tidspress fra andre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg får ikke håndtere viktige ting riktig grunnet mangel på tid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg får ikke ordentlig søvn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg får ikke restituert meg ordentlig etter sykdom grunnet mangel på tid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er under så mye tidspress at det går ut over helsa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Så noen spørsmål om andre levevaner:

Hvor mange timer sover du vanligvis om natten på hverdagene?

Fyll inn antall timer. For eksempel 7,5

\_\_\_\_\_

Hvor mange timer sover du vanligvis om natten i helgene?

Fyll inn antall timer. For eksempel 7,5

\_\_\_\_\_

Prøver du å slanke deg?

Nei, vekten min er passe

- Nei, jeg trenger å gå opp i vekt
- Nei, men jeg trenger å gå ned i vekt
- Ja

### Røyker du?

- Nei, jeg har aldri røykt regelmessig
- Nei, jeg har sluttet
- Ja, men ikke daglig
- Ja, daglig

### Snuser du?

- Nei, jeg har aldri snust regelmessig
- Nei, jeg har sluttet
- Ja, men ikke daglig
- Ja, daglig

## De neste spørsmålene dreier seg om opplevelse av egen helse

### Hvordan vil du beskrive din egen helse?

- Meget god
- God
- Verken god eller dårlig
- Dårlig
- Meget dårlig

### I hvilken grad begrenser din helse dine hverdagslige gjøremål?

- I stor grad
- I noen grad
- I liten grad
- Ikke i det hele tatt

### Har du, eller har du hatt følgende?

	Ja	Nei	Vet ikke
Spiseforstyrrelser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Angst	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Depresjon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### I løpet av de siste 7 dagene, hvor ofte har du?

	Hele tiden	Mye av tiden	Deler av tiden	Noe av tiden	Ikke i det hele tatt
Følt deg rolig og harmonisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hatt overskudd av energi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Følt deg nedfor og deprimert

## Og så noen bakgrunnsspørsmål om deg og barnet som deltar i undersøkelsen:

Hvilket kjønn er du?

- mann  
 kvinne

Er du gravid?

- Ja  
 Nei

Hvilken relasjon har du til barnet som deltar i undersøkelsen?

- Barnets mor  
 Barnets far  
 Annen person

Hva er din fødselsdato?

Fyll inn dato. XX.XX.XX (for eksempel 24.10.76)

---

Hvor høy er du (cm)?

cm

---

Hvor mye veier du (kg)?

kg

---

Etnisk bakgrunn

Ble du født i Norge?

Ja    Nei    Vet ikke

Ble din mor født i Norge?

Ble din far født i Norge?

Ble barnet som deltar i undersøkelsen født i Norge?

Ble barnets andre forelder født i Norge?

Hva er din sivile status?

- Enslig  
 Gift  
 Samboer

- Separert
- Skilt
- Annet

Bor barnets mor og far/barnets foresatte sammen?

- Ja
- Nei

Hvor mange personer bor det i husholdningen din?

Fyll inn antall

\_\_\_\_\_

Hvor mange av personene som bor i husholdningen er barn?

Fyll inn antall

\_\_\_\_\_

Hvilken utdanning har du? Marker høyeste fullførte utdanning

- Mindre enn 10 års grunnskole
- Grunnskole
- Videregående skole (inkl. gymnas/yrkesskole)
- Universitet eller høyskole (inntil 4 år)
- Universitet eller høyskole (mer enn 4 år)
- Annet

Utdanning til barnets andre forelder/foresatt? Marker høyeste fullførte utdanning.

- Mindre enn 10 års grunnskole
- Grunnskole
- Videregående skole (inkl. gymnas/yrkesskole)
- Universitet eller høyskole (inntil 4 år)
- Universitet eller høyskole (mer enn 4 år)
- Annet
- Vet ikke

Hva er din hovedaktivitet?

- Arbeid, heltid
- Arbeid, deltid
- Hjemmeværende
- Sykemeldt
- Permisjon
- Uføretrygdet
- Under attføring/rehabilitering
- Student/skoleelev