The postpartum period
A window of opportunity to reduce ethnic differences in women’s health
A population based cohort study

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1. Preface

1.1 Acknowledgements

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Oslo, June 2016
1.2 List of papers


4. Waage C, Jenum AK, Mdala I, Berg JP, Richardsen KR, Birkeland KI. An HbA1c ≥ 39 mmol/mol (≥ 5.7%) postpartum is a prevalent finding in ethnic minority women. (Submitted)
### 1.2 Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ADA</td>
<td>American Diabetes Association</td>
</tr>
<tr>
<td>BMI</td>
<td>Body mass index</td>
</tr>
<tr>
<td>CI</td>
<td>Confidence interval</td>
</tr>
<tr>
<td>DBP</td>
<td>Diastolic blood pressure</td>
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<tr>
<td>EPDS</td>
<td>Edinburgh Postnatal Depression Scale</td>
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<tr>
<td>FPG</td>
<td>Fasting plasma glucose</td>
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<tr>
<td>GDM</td>
<td>Gestational diabetes mellitus</td>
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<tr>
<td>GW</td>
<td>Gestational week</td>
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<tr>
<td>GWG</td>
<td>Gestational weight gain</td>
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<tr>
<td>HbA1c</td>
<td>Glycated haemoglobin</td>
</tr>
<tr>
<td>IADPSG</td>
<td>International Association of Diabetes and Pregnancy Study Group</td>
</tr>
<tr>
<td>IOM</td>
<td>Institute of Medicine</td>
</tr>
<tr>
<td>NICE</td>
<td>National Institute of health and Care Excellence</td>
</tr>
<tr>
<td>OGTT</td>
<td>Oral glucose tolerance test</td>
</tr>
<tr>
<td>OR</td>
<td>Odds ratio</td>
</tr>
<tr>
<td>PPWR</td>
<td>Postpartum weight retention</td>
</tr>
<tr>
<td>RCT</td>
<td>Randomized controlled trials</td>
</tr>
<tr>
<td>SBP</td>
<td>Systolic blood pressure</td>
</tr>
<tr>
<td>SD</td>
<td>Standard deviation</td>
</tr>
<tr>
<td>T2DM</td>
<td>Type 2 diabetes mellitus</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>WHO1999</td>
<td>GDM by the WHO 1999 criteria</td>
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<tr>
<td>WHO2013</td>
<td>GDM by the WHO 2013 criteria</td>
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2. INTRODUCTION

Obesity, type 2 diabetes mellitus (T2DM) and cardiovascular disease constitute a major threat to global public health in the 21st century [1], and cardiovascular disease accounts for 1/3 of all deaths to women globally [2]. T2DM negates the protective effect of being a female, as cardiovascular disease rates are similar in both genders [3]. Ethnic minority group are often socially disadvantaged and more affected by T2DM and cardiovascular disease [4-7]. Ethnicity is defined as the social group a person belongs to because of e.g. a shared culture, history, geographical origin, language, diet, physical and genetic [8]. T2DM is diagnosed 10 to 15 years earlier in ethnic minority groups than in Norwegians [9], and cardiovascular disease and diabetes mortality rates are higher in most groups born outside Europe [10, 11]. Likewise, gestational diabetes mellitus (GDM) is a common complication of pregnancy [12], and ethnic minorities are at increased risk of GDM, low birth weight, preterm delivery and/or perinatal mortality [13, 14].

Pregnancy can be considered as a natural stress test for the woman’s future risk for T2DM and cardiovascular disease [15]. More women of reproductive age today are overweight or obese, and more insulin resistant compared with lean women [16], which increases the long-term risk of T2DM, and cardiovascular disease [16]. During pregnancy and the postpartum period women have a higher risk of developing overweight [17]. Many studies report a mean postpartum weight retention (PPWR) of 0.4 to 3.8 kg [18-21], nevertheless there are variations as 28% of the women in a Dutch study retained more than 5 kg postpartum [21]. Excessive gestational weight gain (GWG) is a strong risk factor for weight retention and later overweight in the mother [22-24]. Our knowledge on ethnic differences in GWG and PPWR are mainly based on studies from the U.S. and findings are not directly applicable to Europe as the composition of ethnic minority groups and the contexts differ between these continents.

The maternal cardiovascular system undergoes considerable physiological changes during pregnancy. In a normal pregnancy, cardiac output first increases, primarily as a result of an increased heart rate followed by an increased stroke volume [25]. Cardiac output continues to increase until mid-pregnancy, and remains stable, with a possible small decline close to term [25]. The increased cardiac output is balanced by a vasodilation of the peripheral arteries, thus a decrease in arterial blood pressure with a nadir between gestational week (GW) 21 and 26 followed by an increase until delivery [26, 27]. The evidence on blood pressure trajectories from early pregnancy to postpartum between and within different ethnic
groups are sparse, however one study from U.S. [28] and one Dutch study [29] found ethnic differences and the authors discuss this issue.

In Norway, as well as internationally, Haemoglobin A1c (HbA1c) is the preferred diagnostic test of choice for diabetes today. Furthermore, several stakeholders, including the American Diabetes Association (ADA) recommend that a HbA1c can also be used as a marker for future risk of T2DM [30]. Women with previous GDM have a seven-fold increased risk of developing T2DM in the future [31] and most guidelines have suggested to use a 75-g oral glucose tolerance test (OGTT) in the postpartum period to assess diabetes status and future risk for diabetes [32, 33]. Nevertheless, adherence to the recommendation is poor, and several barriers have been identified such as time constraints, care for the baby and the burden of an OGTT [34]. Therefore, alternative tests have been suggested for the postpartum test. It is debated whether a fasting plasma glucose (FPG) or HbA1c are more feasible measures than an OGTT for the screening of women with previous GDM. These tests however, cannot detect impaired glucose tolerance [35]. However, new guidelines from the National Institute of Health and Care (NICE) recommend that (if not tested earlier) all women with a previous history of GDM should have a postnatal HbA1c (measured after 13 weeks) window 39-47 mmol/mol (5.7-6.4%) to define women at increased risk of diabetes [36]. Challenges with this practice include individual differences in red cell turnover that contribute to variation in HbA1c [37] and ethnic variability in HbA1c exists [38-45]. T2DM can be prevented by moderate adaptations in lifestyle among the disposed, as shown in clinical trials including mostly obese post-reproductive persons with abnormal glucose metabolism [46]. The early postpartum period might be an underused window of opportunity for prevention of T2DM and cardiovascular disease. The present thesis explores ethnic differences in GWG, PPWR, blood pressure trajectories from early pregnancy to postpartum and HbA1c level postpartum, all of which may affect women’s health and future risk for T2DM and cardiovascular disease.

Previous studies from the STORK Groruddalen study have been the basis for the work of this thesis [47-51].
2.1 Weight gain during pregnancy and postpartum weight retention

2.1.1 Definitions and characteristics of weight gain during pregnancy
The most widely adopted recommendations concerning GWG are from the Institute of Medicine (IOM) [52]. GWG is a complex biological phenomenon that supports the growth and development of the fetus, and is influenced by changes in maternal physiology, metabolism, and placental metabolism [52]. Components of GWG are blood volume, uterus, mammary gland, fat tissue, extracellular fluid, amniotic fluid, placenta and the fetus [52]. The total amount of weight gained in normal-term pregnancies varies among women, and is higher in the second trimester and third trimester than the first, and is related to maternal pre-pregnancy BMI [52]. These GWG patterns may be influenced by ethnicity and age [52]. The mean GWG in normal-term pregnancies has been reported to range from 10.0-16.7 kg in normal weight women [52]. Measurement of fat mass during pregnancy is challenging as several of the methods are not applicable to pregnancy [52]. Amniotic fluid may contribute to GWG by approximately 1 kg at term in normal pregnancies [52]. The size of the placenta is correlated to fetal growth, averaging approximately 0.5 kg in singleton pregnancies [52]. Estimating fetal weight by ultrasound is clinically important [53]. Nevertheless, weight change of the fetus is difficult to measure accurately, due to a range of factors e.g. physiological and lifestyle related behaviour) [52].

2.1.2 Recommendations for weight gain during pregnancy
According to guidelines from the IOM [52], pregnant women is recommended to gain weight according to their pre-pregnancy BMI, with obese women gaining the least. The current recommendations for total GWG are presented in Table 1. The IOM recommendations are based on observational studies (which have low quality of evidence) [52] and little is known whether they apply equally to all ethnic groups. These guidelines are used in many countries, including Norway.
Table 1. Gestational weight gain by pre-pregnancy BMI categories

<table>
<thead>
<tr>
<th>Pre-pregnancy BMI</th>
<th>Weight gain recommendations</th>
</tr>
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<tbody>
<tr>
<td>Underweight &lt;18.5 kg/m²</td>
<td>12.5-18 kg</td>
</tr>
<tr>
<td>Normal weight 18.5-24.9 kg/m²</td>
<td>11.5-16 kg</td>
</tr>
<tr>
<td>Overweight &gt;25.0 – 29.9 kg/m²</td>
<td>7-11.5 kg</td>
</tr>
<tr>
<td>Obese ≥ 30.0 kg/m²</td>
<td>5-9 kg</td>
</tr>
</tbody>
</table>

Gestational weight gain recommendations from IOM for singleton pregnancy by pre-pregnancy BMI categories [52].

2.1.3 Excessive gestational weight gain and postpartum weight retention

Excessive GWG is associated with maternal and fetal complications such as preeclampsia, GDM, caesarean section and large for gestational age babies [54-60], and high PPWR [22-24, 61, 62], thus increasing the women’s risk of becoming obese in the future. High GWG is also associated with later overweight in the offspring [63, 64]. Previous evidence on ethnic differences in GWG is mainly based on studies from North America [65-69], indicating that further research on GWG across ethnic subgroups in Europe is needed to identify groups vulnerable to high GWG.

Pre-pregnancy BMI and GWG are the strongest predictors of PPWR [70]. Some ethnic minority groups seem to be at higher risk for PPWR, and in groups with high parity, the pregnancy-obesity circle may be the most important driver of later obesity [21]. Understanding PPWR is complex. Ethnic differences in PPWR may relate to energy intake, diet quality in pregnancy, nutrition knowledge, physical activity patterns, length of residency, depression, breastfeeding and sleep duration [21, 71]. In the antenatal period, women usually follow programs for antenatal care and are in regular contact with the general practitioner, and may be motivated to improve diet and physical activity behaviours for the benefit of their offspring [72].

2.2 Cardiovascular physiological adaption to pregnancy

Maternal cardiovascular adaption to pregnancy involves large changes. Cardiac output is the volume of blood pumped by the heart per minute (mL blood/min), and is a function of heart rate and stroke volume [73]. Increasing either heart rate or stroke volume, increases cardiac output [73]. Cardiac output increases in early pregnancy as a result of an increased heart rate, followed by an increased stroke volume [25]. Cardiac output continues to rise until mid-
pregnancy (and remains stable afterwards) [25]. The general view is that blood pressure drops in mid-trimester, reaching its lowest level about GW 20, followed by a progressive increase until term [73-77]. During pregnancy, physiological changes in circulating blood volume, cardiac output, and arterial resistance allow the cardiovascular system to compensate for the increased metabolic demand [78]. In normal pregnancy, the increased cardiac output is accompanied by vasodilatation of the peripheral arteries, resulting in reduced arterial blood pressure. However, the mid-trimester drop has been challenged by Nama et al. [79], who found blood pressure to increase progressively during pregnancy.

### 2.2.1 Hypertensive disorders

Understanding cardiovascular physiological adaptions to pregnancy is important in the management of hypertensive disorders in pregnancy and postpartum. In the U.S. and globally, hypertensive disorders affect up to 8% of all gestations and represent a major challenge with increased risk for maternal and perinatal morbidity and morbidity [80]. Pre-eclampsia is linked to later cardiovascular disease, and a systematic review and meta-analysis found that women with a history of pre-eclampsia had a 4-fold increased risk for hypertension and a 1.5 times higher risk of all-cause mortality [81]. Pre-eclampsia is usually defined as blood pressure \( \geq 140/90 \text{ mmHg} \) and 24-hour proteinuria \( \geq 0.3 \text{ g} \), is a multisystem disorder, induced by abnormal vascular response to placentation [82]. The incidence ranges from 3% to 7% for nulliparous and 1% to 3% for multiparas [82], slightly increasing during recent years [83]. Women with pre-existing hypertension, diabetes, obesity, or a close relative with pre-eclampsia and previous early pre-eclampsia, are at increased risk of pre-eclampsia [83]. In the Hyperglycaemia and Adverse Pregnancy Outcome Study (HAPO) one objective was to determine whether higher BMI, independent of maternal glycaemia, was associated with adverse pregnancy outcome and they found that higher maternal BMI was strongly associated with increased frequency of pre-eclampsia [84, 85]. One study evaluated the left ventricular systolic and diastolic function during normal pregnancy and concluded that pregnancy represents a larger load on the cardiovascular system than previously assumed [86].

Furthermore, the incidence of pre-eclampsia differs by ethnicity [87]. Caribbean, African and Hispanic American origin seem to confer substantially higher risk of serious pre-eclampsia than European origin women, with Asian women having the lowest risk [88]. However, although most populations studied are of European origin, women of Afro-
Caribbean origin have an increased risk of pre-eclampsia [88], likely contributing to their excess risk of hypertension and cardiovascular disease.

2.3 Gestational diabetes mellitus and later risk for type 2 diabetes

GDM has been defined as any degree of glucose intolerance with onset or first recognition during pregnancy [89-92]. The definition includes hyperglycaemia that is induced by pregnancy, and undiagnosed diabetes prior to pregnancy [89]. The blood glucose level usually normalizes after delivery, yet this is not prerequisite in the definition [93]. Classic risk factors for GDM include age, previous history of glucose intolerance of any degree of hyperglycaemia, history of large for gestational age babies and ethnic groups minority background from high risk [89]. The first diagnostic criteria for GDM were published in 1966 by O’Sullivan at al., and were mainly based on maternal outcomes of hyperglycaemia in pregnancy [94].

Globally, there are large variations in the prevalence of GDM between regions and countries, however comparison between different countries is challenging due to different diagnostic criteria and population characteristics [95]. The prevalence rates of GDM in population-based studies range from 1% to 22% [96]. In a recent overview, GDM prevalence in Norway was reported to be diagnosed in 2-4% of pregnancies [97]. However, in our STORK Groruddalen cohort the GDM prevalence was 13% with the WHO (1999) criteria (WHO1999), and 32% with the modified International Association of Diabetes and Pregnancy Study Group (IADPSG) criteria [47]. The large diversity reflects differences in study populations, diagnostic criteria and an increasing prevalence associated with the global epidemic of obesity and T2DM. Irrespective of the level of pre-pregnant insulin resistance, the pregnancy-induced increase in insulin resistance is about 50-60% [16].

Today, a variety of screening procedures and diagnostic criteria for GDM is in use. The WHO1999 [89] is commonly used, however the IADPSG has proposed new criteria for GDM based on findings from the Hyperglycaemia and Adverse Pregnancy Outcome (HAPO) study [92, 98], now adopted by the WHO (WHO2013) [99]. The rates of GDM are reflecting those of T2DM in the population, with higher rates in most ethnic minority groups [7]. As GDM may reflect pre-existing but undiagnosed T2DM, or indicate a high risk of future T2DM, evaluation of glucose status after a GDM pregnancy is recommended [36]. The increasing prevalence of hyperglycaemic disorders in pregnancy is consistent with overweight and obesity that are driving the epidemic of T2DM globally [36, 100-102].
Women with previous GDM may display early signs of increased cardiovascular disease risk, through higher values for endothelial dysfunction, CRP, inflammatory markers and metabolic abnormalities [103]. In a follow-up of a large population–based cohort, previous GDM increased the risk for cardiovascular disease [104]. After adjusting for T2DM, the risk was attenuated, indicating that early intervention in women with previous GDM to prevent the development of T2DM may be important [105]. Obesity is a strong risk factor for GDM in all ethnic groups, mainly among non-Asian ethnic groups [106]. The prevalence of GDM has increased in all ethnic groups, and in the U.S. native Americans, Asians, Hispanics, and African-Americans are at higher risk for GDM than non-Hispanic white women [107, 108].

In 1952, Pedersen [109] assumed that maternal hyperglycaemia was transmitted to the fetus, which produced and released large amounts of insulin, leading to increased birth weight in infants of women with diabetes (macrosomia). In the HAPO study [110] they concluded that there was a strong association between maternal glucose and neonatal adiposity, and that the relationship probably is mediated by fetal insulin production, lending support to the Pedersen hypothesis [110].

2.4 HbA1c level postpartum identify risk for type 2 diabetes
Measuring HbA1c has recently been approved by the UK NICE and ADA as an alternative, more user friendly test postpartum than performing OGTT. It was proposed to use a cut-off level of HbA1c ≥ 39 mmol/mol (5.7%) to indicate high risk of future T2DM in women with GDM in the previous pregnancy [36]. According to NICE, postnatal OGTT should no longer be used routinely. Instead, NICE recommends FPG 6-13 weeks postpartum, with HbA1c used after 13 weeks postpartum if testing was delayed for some reason. These new recommendations are debated as some regret the loss of the possibility to identify impaired glucose tolerance by the OGTT, while others welcome this more user-friendly approach [111]. HbA1c levels are lower in early pregnancy [112, 113], and during normal pregnancy, a decrease in FPG occurs between GW 6 and 10 [114]. A possible explanation is and increased turnover of erythrocytes [115]. However, a rise in HbA1c from the second to the third trimester, which may be due to a relative iron deficiency natural at this stage of pregnancy [116, 117].
3. AIMS OF THE THESIS

The overall goal of this thesis was to improve the knowledge about clinical practice to prevent T2DM and cardiovascular disease in women who “failed the stress-test of pregnancy” in a multi-ethnic society by assessing the specific aims:

I. To examine whether there are ethnic differences in mean GWG by GW 15 and 28 and by delivery in a population-based cohort of pregnant women in Oslo, Norway (Paper 1).

II. To explore ethnic differences in PPWR three months postpartum in a population-based cohort of pregnant women living in Oslo, Norway (Paper 2).

III. To examine ethnic differences in BP levels in early pregnancy, in second half of pregnancy, and three months postpartum in a multi-ethnic cohort, to explore blood pressure changes during pregnancy until 14 weeks postpartum within each ethnic group, and associations between blood pressure and unmodifiable and modifiable maternal characteristics, and the impact of these variables on ethnic differences in blood pressure (Paper 3).

IV. To investigate the prevalence of HbA1c ≥ 39 mmol/mol (5.7%) 14 weeks postpartum in different ethnic groups and in women with and without GDM (WHO2013) in the index pregnancy, and to explore demographic and biological factors from early pregnancy that are independently associated with HbA1c ≥ 39 mmol/mol (5.7%) postpartum in a multi-ethnic population (Paper 4).
4. METHODS

4.1 Setting and design
The Stork Groruddalen study is a longitudinal population-based cohort study of pregnant women and their offspring. The planning of this study started in 2007 in the residential areas of Bjerke, Grorud and Stovner administrative district in Groruddalen, Oslo. The areas reflect a population with a diverse socioeconomic position. The proportion with ethnic minority background was 33% in Bjerke, 38% in Grorud and 41% in Stovner district [118]. The study was carried out at the Child Health Clinic in the three districts. The inclusion period lasted from May 6th 2008 to May 15th 2010 [118] and consisted of interviews, physical examinations, collection of blood samples for analysis and bio-banking and objectively recording of physical activity of the women at three time points: visit 1 (V1) (mean GW 15), visit 2 (V2) (mean GW 28) and visit 3 (V3) (three to four months postpartum). Validated or frequently used questions from other Norwegian or international surveys were used when available, some adapted to the actual context [118]. A close collaboration between the partners in the three districts in the city of Oslo (Bjerke, Grorud and Stovner), Oslo Diabetes Research Centre, Oslo University Hospital/Akershus University Hospital and the University of Oslo was established to carry out the data collection.

4.2 Inclusion and exclusion criteria
Women were included in the study if they 1) lived in one of the three study districts, 2) planned to give birth at one of the two study hospitals (Akershus University Hospital, Oslo University Hospital-Ullevål), 3) were ≤20 weeks pregnant, 4) could communicate in Norwegian, Arabic, English, Sorani, Somali, Tamil, Turkish, Urdu or Vietnamese and 5) were able to give informed written consent [118]. Women with known pre-pregnancy diabetes or other diseases necessitating hospital follow-up during pregnancy were excluded [118]. The study cohort has been found fairly representative for the main ethnic groups of women attending the Child Health Clinic for antenatal care [118]. To facilitate inclusion of ethnic minority women, information material and questionnaires were translated into eight languages: Arabic, English, Sorani, Somali, Tamil, Turkish, Urdu and Vietnamese, and quality checked by bilingual health professionals [118].
4.3 Study sample

In total, 823 women (74% of the invited) with different ethnic origin were included in the STORK Groruddalen Study [118]. Of those included at V1 (GW 15.0, SD 3.3), 772 (94%) attended at V2 (GW 28.3, 1.3) and 662 attended the postpartum visit (14.2, 2.7 weeks postpartum) [118]. Different study samples were selected for analysis in the four papers included in this thesis (Figure 1).

Figure 1. Flow-chart of study sample selection. A total of 51 women did not attend at GW 28 for the following reasons: Abortion or stillbirths (n=15), complications for mother or baby (n=6), lost to follow up (n=30). Women from South or Central America were excluded in the papers in this thesis (n=12).

4.4 Data collection

Data from questionnaires, anthropometric measurements and fasting blood samples were collected according to a detailed protocol during the three visits (V1-V3) at the local Child Health Clinics [118]. Data were collected by interviews by midwives certified by the project leader. Professional translators were used when required [118]. The questionnaires were pilot tested for clarity and feasibility and covered information about demographics factors, medical history, depressive symptoms and lifestyle factors. Blood samples were collected by laboratory personnel, and a project physiotherapist assisted in collecting objectively recorded physical activity data. The methods used to collect data presented in all four papers are further described in this chapter.
4.4.1 Outcome variables

Gestational weight gain
Total GWG in kilo was self-reported at 14 weeks postpartum. GWG by GW 15 and 28 was calculated based on self-reported pre-pregnancy body weight and measured body weight at GW 15 and 28, respectively.

Postpartum weight retention
PPWR in kilo was calculated as the difference between objectively measured weight at V3 and the woman’s self-reported pre-pregnancy weight at inclusion. Self-reported pre-pregnancy weight was strongly correlated with weight measured at V1 for all ethnic groups (r=0.97, P<0.01, mean difference: 2.0 kg) [47].

Blood pressure and pulse
Mean systolic blood pressure (SBP) (mmHg), mean diastolic blood pressure (DBP) (mmHg) and pulse rate were measured three times at each of the three visits, with the women in a sitting position, after at least 5 minutes’ rest. Blood pressure was measured in the morning hours as women met fasting for blood samples, except in few cases due to logistic reasons. We used a validated Omron HEM-7000-E M6 Comfort (Omron HealthCare, Kyoto, Japan) electronic device on the dominant arm. The selected blood pressure device was a newer version of those who were approved by the British Hypertension Society [119]. Mean values of the two last readings were used for analyses, except when only one valid blood pressure measurement was present. We used the standard cuff for upper arm circumferences of 22-42 cm. If outside this range a standard Mercury sphygmomanometer was used (n=11).

HbA1c
HbA1c was measured at V3 in venous EDTA samples with HPLC (Tosoh G8, Tosoh Corporation) [47], and categorised as HbA1c ≥ 39 mmol/mol (5.7%), further referred to as elevated or HbA1c < 39 mmol/mol (5.7%), further referred to as normal [36].
4.4.2 Descriptive variables

Ethnic origin

*Ethnic origin* was defined by own country of birth, or that of the participant’s mother if she was born outside Europe or North-America [120]. To assure statistical power, countries of birth were combined into six ethnic groups. The women’s country of origin was categorized into ethnic origin groups (regions) often used in medical research related to T2DM [121] (Table 2). European origin was split into Western Europeans and Eastern Europeans in all four papers. For women who were not born in Norway, *duration of residence in Norway*, was categorized as “0-1 year” (recent immigrants) or “≥2 years”.

Table 2. Ethnic origin of the women included in The STORK Groruddalen Study.

<table>
<thead>
<tr>
<th>Ethnic groups</th>
<th>Country of birth</th>
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<tbody>
<tr>
<td>Western Europe</td>
<td>Norway (93%)</td>
</tr>
<tr>
<td>(n=336, 41%)</td>
<td></td>
</tr>
<tr>
<td>South Asia</td>
<td>Pakistan (63%)</td>
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<tr>
<td>(n=200, 24%)</td>
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<td>Middle East</td>
<td>Iraq (30%)</td>
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<td>(n=126) (15%)</td>
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<td>East Asia</td>
<td>Vietnam (41%)</td>
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<td>(n=44, 5%)</td>
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<td>Eastern Europe</td>
<td>Poland (16%)</td>
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<td>(n=43, 5%)</td>
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<tr>
<td>South and Central America</td>
<td>Other (2%)</td>
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<td>(n=12, 2%)</td>
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Study population, n=823 (74% of the invited). *Among other: North America (n=3).

Time point of measurements

The women were asked to report her first day in the last menstrual period and this date was used to estimate GW at V1 and V2. Weeks postpartum at V3 was calculated based on offspring’s data of birth. Table 3 shows an overview of the four papers included in this thesis with study design, sample size, variables and statistical methods.
Table 3. Design, sample size, variables and statistical methods used in papers I-IV.

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<td>Postpartum weight retention (V3)</td>
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<td>Haemoglobin (V1,V3)</td>
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*EPDS: Edinburgh Postnatal Depression Scale.*
4.4.3 Explanatory variables

Demographics

Age, parity and ethnic origin of all women attending the Child Health Clinics, and of study participants are based on routinely recorded data at the Child Health Clinics [118]. Parity was categorised as either nulliparous or multiparous (≥ 1). The women were asked to report their education level with the following response categories: “less than 7 years”, “elementary school (7-9 years)”, “1-2 years’ secondary school”, “3 years’ secondary school”, University College at bachelor level” or “University, University College at master level or higher”, in addition to the numbers of years completed at each level. If the level of education was missing, the number of years was used to categorize the level of education. Marital status was classified as “married”, “partner”, “cohabitant”, “single”, “divorced” or “widow”. Occupational class was recorded with reference to ISCO-88 codes [122] and classified into 10 major hierarchical groups. In the analyses, these groups were collapsed into; managers and degree occupations, clerical/service and assembly’s occupations, elementary occupations and homemakers. Questions regarding maternal early life socioeconomic position all referred to the women’s age of 10 years [51]. The early life socioeconomic position variable was a score from a Principal Component-Analysis (range -2.19 to 2.59) that included family occupational class (highest of mother or father), rooms per person in household and family ownership of a car [51].

Medical information

GW was calculated as GW at 2 time points and weeks postpartum. Pregnancy induced severe nausea was categorized as “yes” or “no” based on the midwives clinical experience and control questions, regarding impact on daily life function, length of symptoms and frequency of vomiting [123]. The Edinburgh Postnatal Depression Scale (EPDS) was originally designed to identify women at risk for postpartum depression, but later also used for depression in pregnancy [124], and was used to assess depressive symptoms at V2. Adverse life events refer to questions about external life stress during the past six months prior to pregnancy, collected at V1, and reported as “0 events”, “1 event” and “≥ 2 events” [125]. Family history of cardiovascular disease and diabetes in the mother’s family was reported as “yes” or “no”. Information about hypertension and hypertensive pregnancy complications (including eclampsia, HELLP syndrome (named for 3 features of the disease: hemolysis, elevated liver enzyme levels, and low platelet levels), and hypertensive complications without
proteinuria) was collected from hospital records. Mode of delivery was classified as spontaneous birth, vacuum/forceps-assisted and caesarean section, and collected from hospital medical records. Information about GW at delivery and the baby’s birth weight were also collected from the hospital birth records. Breastfeeding was classified as “exclusive breastfeeding”, “mixed feeding” and “formula feeding”, during the past 14 days prior to V3.

**Lifestyle**

History of regular physical activity prior to pregnancy was self-reported using the response categories: “never”, “< 1 year”, “1-5 years”, “6-10 years” or “> 10 years”. The response category “never” was recoded into “not regular” and the other categories were merged into “regular pre-pregnancy physical activity”. Smoking during the three months prior to pregnancy was self-reported with the response categories: “not smoking”, “occasional” or “daily”. To survey the participant’s diet, the women answered a Food Frequency Questionnaire [49], especially developed for The STORK Groruddalen study to survey dietary habits across ethnic groups and reflected regular intake over the past two weeks.

Only a few participants did not answer all questions in the questionnaires, leaving us with a low number of missing data.

**Anthropometrics**

*Body height (cm)* was measured to the nearest 0.1 cm with a fixed stadiometer (checked against a standard meter before study start and twice yearly). *Pre-pregnancy body weight (kg)* was self-reported at V1 and *body weight* was measured in light clothing without shoes at V1, V2 and V3, to the nearest 0.1 kg, by a digital scale, calibrated before study start and thereafter biannually, with the Tanita-BC 418 MA body composition analyser (Tanita Corp., Tokyo, Japan) [126]. *BMI* was calculated as body weight in kg divided by body height in meters squared (kg/m²). Total *body fat* (kg) (referred to as fat mass in paper II) was measured at V1 and V2, with the bioelectrical impedance analysis scale (Tanita-BC 418 MA).

*Objectively measured physical activity – steps per day*

Physical activity was objectively recorded by the SenseWear™ Pro3 Armband. The data from the monitor was downloaded and analysed with the Software developed by the manufacturer (SenseWear Professional Research Software version 6.1, Body Media Inc., Pittsburg, Pennsylvania, USA) [127]. The armband was affixed to the women’s upper arm at the end of
the interview. The women were instructed to wear the armband until a defined day (minimum of 4 days) [128], only removing it for bathing/water activities. Data from women with a minimum of one day (defined as ≥ 19.2 hours, 80% of the day) of recorded data were classified as valid [48]. Data are reported as mean steps per day or categorized as “≥ 10 000 steps per day” or “< 10 000 steps per day”.

Venous blood samples
At all three visits, venous blood was sampled in the morning after an overnight fast and sent for routine analyses at the Akershus University Hospital and the Hormone Laboratory, Oslo University Hospital [118]. Haemoglobin (g/dL) was measured by Sysmex XE-5000, (Sysmex Corporation), fasting total triglycerides (mmol/L), HDL-cholesterol (mmol/L) and LDL-cholesterol (mmol/L) were analysed in serum with a colorimetric method (Vitros 5.1 FS, Ortho clinical diagnostics).

A standard 75 g OGTT was performed at visit 2 [118] and glucose was measured on site with (HemoCue 201+, Angelholm, Sweeden) calibrated for plasma. During the study, women were diagnosed with GDM by the WHO1999 criteria (FPG ≥ 7.0 or 2-h plasma glucose (PG) ≥ 7.8 mmol/L) [89]. Women with 2-h values 7.8-8.9 mmol/L were given lifestyle advice and referred to their general practitioner for follow-up, and women with FPG ≥ 7.0 mmol/L or 2-h values ≥ 9.0 mmol/L were referred to specialist care [47]. GDM by the WHO2013 criteria (FPG ≥ 5.1 or 2-h glucose ≥ 8.5 mmol/L: no 1-h value available) [99] was also reported [47]. At V3, OGTT was only performed in the subset of women with previous GDM (WHO1999) who returned for the follow-up visit (n=88).

4.5 Statistical analyses
All statistical analyses presented in this thesis were performed using IBM SPSS, version 20.0-21.0 or Stata/SE 13.1. For overview, see table 3.

4.5.1 Descriptive and bivariate analyses
In all four papers, descriptive statistics are presented by mean values, standard deviation (SD) or 95% confidence intervals (CI) and proportions (%). All main outcome variables were normally distributed. Comparisons of means were tested by independent t-tests, and the chi-squared test was used to test differences in proportions for categorical variables. Correlations between variables were tested by Pearson correlation test.
In Paper III, differences in means of SBP, DBP and pulse rate between ethnic groups were tested with one-way ANOVA with Bonferroni corrections for multiple testing. A significant level of 0.05 was set unless stated otherwise.

4.5.2 Linear models
In papers I, II and III, linear regression analyses were performed to model the association between the main outcome variables and explanatory factors. In Paper I, a linear regression was performed to model the relationship between ethnicity and GWG. In Paper II, a linear regression was performed to model the relationship between ethnicity and PPWR. In Paper III, a linear regression was performed to investigate whether PPWR was independently associated with blood pressure at V3. The results from the linear regression analyses are presented as regression coefficients ($\beta$) with 95% CI and accompanied adjusted $R^2$.

4.5.3 Linear generalized estimating equations
In Paper III, the linear generalized estimating equations (GEE) were used to explore longitudinal changes in mean blood pressure in different ethnic groups and identify explanatory variables for such changes. The model selection was based on Quasi Likelihood under Independence Model Criterion (QIC). The results from the GEE are presented as regression coefficients ($\beta$) with 95% CI. We tested for interactions in both the GEE and the linear regression analyses [129].

4.5.4 Logistic models
In Paper IV, the association between HbA$_{1c}$ $\geq$ 39 mmol/mol (5.7%) 14 weeks postpartum and demographic and biological factors in the index pregnancy, including GDM (WHO2013), were assessed by logistic regression models. The results are presented as OR with 95% CI and accompanied with $R^2$. 

4.5.5 Sensitivity analyses
In Paper I, a linear regression analysis was restricted to the non-smokers to control for potential confounding by smoking status, as it was not possible to adjust for smoking due to low numbers of smokers in some ethnic groups.

In Paper II, two sets of sensitivity analyses were performed. First, to investigate the impact of the choice of method used in the multiple linear regression models, we performed a full model with all 12 explanatory factors included. Secondly, self-reported GWG was
replaced with objectively measured GWG from inclusion to GW 28, and thereafter weight loss after delivery.

In Paper III, a GEE was performed based on women with valid blood pressure data at all three visits (complete case analysis).

In Paper IV, a multiple logistic regression was performed on the total sample after excluding women with post-delivery anaemia (haemoglobin concentration <12 g/dL).

4.6 Ethics
The STORK Groruddalen study was conducted according to the Helsinki declaration [130] and the study protocol, the consent form, and the storage of biological material, were approved by the Norwegian Data Protection Authority and by the South Eastern Norway Regional Ethics Committee.

The women were given oral and written information about the study when attending the Child Health Clinics for antenatal care when invited to participate, and before consent. The women were informed about their right to withdraw or restrict their data from analyses at any stage. Women who wanted to participate gave written consent at inclusion, on behalf of themselves and their offspring. The researchers only use anonymous data in their analysis.
5. RESULTS

The STORK Groruddalen study is a population-based cohort study and the results of from papers I-IV are obtained by comprehensive analyses.

5.1 Paper I

Ethnic Differences in Gestational Weight Gain: A Population-Based Cohort Study in Norway


No significant ethnic differences in GWG were observed by GW 15. By GW 28, Eastern European women had gained 2.7 kg (95 % CI 1.10–4.33) and Middle Eastern women 1.3 kg (0.14–2.50) more weight on average than the Western European women (reference group) in the fully adjusted model. Among Eastern European women, the total adjusted GWG at the time of delivery was 3.5 kg (1.33–5.61) above the reference group. GWG for the other ethnic groups (South Asian, East Asian and African) did not differ significantly from the reference group. When including non-smokers (n=522) only, observed between-group differences increased and Middle Eastern women gained more weight than the reference group at all three time points.

5.2 Paper II

Ethnic differences in Postpartum Weight Retention: a Norwegian cohort study


Unadjusted mean PPWR was 2.3 (SD 4.9) kg for women from Western Europe and varied from 3.7 (3.5) to 6.3 (4.7) kg among the five ethnic minority groups. The proportion of women in the highest quintile (PPWR >8.5-24.4 kg) differed significantly (p<0.01) for the proportion of women from South Asia, the Middle East and Africa compared with Western Europeans (Figure 2). Women from all ethnic minority groups had a significantly higher relative increase in weight from pre-pregnancy to postpartum (p<0.01) compared with Western Europeans. After adjustments for significant exposures, women from the Middle East retained 2.0 kg (95% CI: 1.0-3.0), South Asia 2.8 kg (91.9-3.6), and Africa 4.4 kg (3.1-5.8) more than Western Europeans (p<0.01). The ethnic differences in PPWR persisted after adjustments for age, parity, self-reported GWG and education. Age, pre-pregnancy BMI, self-reported GWG, education and diet were independently associated with PPWR.
Figure 2. Proportions of women in each ethnic group according to quintiles of PPWR calculated from the whole cohort. The figure shows the relative proportion of weight retention in the different ethnic groups.

5.3 Paper III

Ethnic differences in blood pressure from early pregnancy to postpartum: a Norwegian cohort study.

*Journal of Hypertension*, Volume 34, Number 6, June 2016, pp 1151-1159.

At GW 15, mean SBP was 4.9-7.0 mmHg lower and mean DBP 2.1-3.4 mmHg lower, for the non-European groups compared with Western Europeans. SBP increased in all non-European groups from GW 15 to 14 weeks postpartum (p<0.01), but not in Europeans. The ethnic differences in blood pressure were further reduced postpartum, with only South Asians having lower mean SBP than Western Europeans (p<0.01). The ethnic differences persisted after adjusting for age, family history of cardiovascular disease, pre-pregnancy BMI and pre-pregnancy physical activity. Age, pre-pregnancy BMI, pre-pregnancy physical activity, PPWR and breastfeeding were independently associated with postpartum blood pressure (p<0.05).

5.4 Paper IV

HbA1c ≥ 39 mmol/mol (5.7%) 14 weeks postpartum is a prevalent finding among ethnic minority women

*Submitted.*

The overall prevalence of HbA1c ≥ 39 mmol/mol (5.7%) postpartum was 28% in ethnic minority women and 15% in Western Europeans (p<0.01), but differed significantly by GDM
status. In ethnic minorities, elevated HbA1c was found in 39% among women with recent GDM diagnosed WHO2013 criteria, and in 22% among women without GDM (p<0.01), compared to 24% and 13% in Western Europeans (p=0.07). HbA1c was associated with the haemoglobin level in univariate analysis (p=0.03). We found independent associations between elevated HbA1c at the postpartum visit and ethnic minority background (OR 2.0, 95% CI 1.27, 3.20) and GDM (OR 2.0, 1.33, 3.12) (p<0.01).
6. DISCUSSION

6.1 Methodological considerations

In this chapter, methodological consideration of the STORK Groruddalen study related to papers I-IV are discussed, including study design, internal validity (selection bias, confounding, information bias) and external validity.

6.1.1 Study design

The four papers included in this thesis used a population-based prospective cohort design where a sample of a defined population was selected for longitudinal assessments of exposure-outcome relations [131]. Cohort studies are often expensive and logistically complicated and they generally can evaluate multiple hypotheses [131]. The main advantage of the prospective design is that exposures are assessed before the outcomes [132]. Several exposures and outcomes can be studied, exposures can be updated during follow-up, and the incidence rates can be clearly estimated [132]. The most often used justification for conducting a cohort study is related its external validity, indicating the applicability of its results to a defined population [131]. Nevertheless, cohort studies can be unfeasible for rare diseases, as large cohorts would be required [132]. However, the Norwegian Mother and Child Cohort study (MoBa) is an example of an large prospective cohort study (n=95 000 mothers and 114 000 children), with the main aim to detect causes of serious, but rare, diseases through estimation of specific exposure-outcome associations among the children and their parents [133]. Cohort studies are often used to study whether one or several exposures are associated with disease incidence [132].

The strengths of the STORK Groruddalen study is the multi-ethnic, population-based cohort design with high participation rates, and the sample found to be fairly representative for the main ethnic groups of pregnant women in Oslo, with minor loss to follow-up at GW 28 and at delivery. However, our findings may be affected by limitations due to heterogeneity within relatively broad ethnic groups, low numbers of participants from Eastern Europe, Africa and East Asia, and the 20% attrition rate at the postpartum visit [118]. In Papers I and II another limitation was that the data sampling procedure gave no opportunity to assess pre-pregnancy weight, and in Paper III pre-pregnancy blood pressure.

A follow-up three to four months postpartum is a relative short time after delivery, and a follow-up study of these women after 6-10 years postpartum would contribute to
substantially increased knowledge about the maternal metabolic profile and future risk for T2DM and cardiovascular disease.

6.1.2 Internal validity

Internal validity refers to how well an experiment is done, especially whether it avoids bias in the way data are collected, analysed, and interpreted [132]. Different types of bias can be distracted from internal validity and a common classification of bias is; selection bias, confounding and information bias [134]. The less chance for confounding in a study, the higher is the internal validity. The different types of bias will be further discussed.

Selection bias

Selection of study participants from a defined population according to specific criteria is a commonly used approach in cohort studies [135], and in general there may be a selection bias if the participants differ from non-participants [136]. However, we have extensively analysed the representativeness of the 823 women included in the project [118]. In this study, pregnant women were recruited from the Child Health Clinics early in pregnancy. The Norwegian National Clinical Guideline for Antenatal Care recommends that women with a normal pregnancy should be cared for in primary health care, either by a midwife or by a general practitioner or by both (shared care) [137]. In this study, some of the women attending antenatal care at the Child Health Clinics, mainly ethnic minority women, were not informed about this study before second trimester as not all women attended antenatal care in early gestation, and possible some of the general practitioners did not remit all the pregnant women to Child Health Clinics. However, it was important to facilitate inclusion of ethnic minority women, and therefore, six months after study start, women from South Asia were allowed to be included until GW 24 and women from Somalia until GW 28.

Although suboptimal from a methodological point of view, of various reasons discussed below, all the 823 women included in the STORK Groruddalen study did not take part in the four sub-studies reported in this thesis. However, in all four papers, the sample sizes were large enough from a statistical perspective. But, when stratifying the respective study samples into different ethnic groups, some ethnic minority groups (e.g. women from Africa, East Asia, and Eastern Europe) were too small to be subject to meaningful statistical comparisons. Limited power may thus be the reason that some of the results did not reach statistical significance. However, we reported results for these ethnic groups as they are becoming more prevalent in many European countries and research on ethnic differences in
women’s health postpartum is important to improve health among vulnerable groups in our society. Another aspect due to the small numbers of participant among some ethnic minority groups is related to lifestyle habits. In papers I and II we found that very few ethnic minority women smoked before and during pregnancy, and it was therefore difficult to compare groups (South Asia, Middle East, Africa, and Eastern Europe).

In Paper I, data on total GWG were available for 632 women, constituting the study sample, after excluding seven women from South or Central America due to low numbers. No statistically significant differences were observed between the participants (n=632) and non-participants (n=191) for age, education, parity, body height, pre-pregnancy body weight, pre-pregnancy BMI, GW at V1. For V2, no statistically significant differences were observed between the participants and non-participants for smoking status, pregnancy-induced severe nausea, depression and the baby’s birth weight.

In Paper II, a total of 13 women did not have valid data on pre-pregnancy body weight or body weight at V3 and were therefore not included in the analyses. In addition, women from South or Central America (n=7) were not included due to low numbers. However, no significant differences between participants (n=642) and non-participants (n=174) were found for age, body height, pre-pregnant body weight and parity. Slightly more women with low education (<12 years) were found among the non-participants (64% versus 54%, p=0.02). Although this difference was small, we cannot exclude that it may have influenced the results.

In Paper III, only the 12 women from South or Central America were excluded. The study sample in Paper III was 811 women, indicating low probability of selection bias.

In Paper IV, data on HbA1c postpartum were available for 570 women, constituting the study sample, after excluding six women from South or Central America. No statistically significant differences between participants (n=570) and non-participants (n=253) were found for age, parity and BMI at V1. The attendance rate at V2 was rather high (94%) and 759 (92.2% of the included) [47]. The reduced number of women attending the postpartum visit (n=662) were mainly due to resource limitations at the Child Health Clinics, and ethnic minority women from the largest regions (Asia and Middle East) and women with GDM (WHO1999) in the index pregnancy (n=89) were prioritised for venous blood sampling. Nevertheless, we were not able to stratify by ethnicity due to low number of OGTT results postpartum in some ethnic groups (Africa n=3, East Asia n=7, Eastern Europe n=3). The possibility of selection bias is also present in that we prioritized ethnic minority women and only did OGTT in GDM women. Considering the fact that we lack data from OGTT at V3 in the majority of the women we were not able to compare OGTT-results with HbA1c.
Confounding

Confounding can lead to over- or underestimation of an effect [132]. A confounder is a variable that is associated with the disease, associated with the exposure, and not an effect of the exposure [138]. Causal interference from observational data requires prior causal assumptions, which have to be derived by expert knowledge and not from statistical associations in the data [139]. Confounding occurs when a variable is a risk factor for an effect among the non-exposed and is associated with the exposure of interest in the population from which the effect derives, without being affected by the exposure or the disease [138]. The STORK Groruddalen study is an observational longitudinal cohort study and definite causal relationship can therefore not be established. Although in the four papers included in this thesis we have included potentially explanatory factors in the models. In Paper II, pre-pregnancy BMI was the main explanatory variable. To our knowledge, there are no confounders to the association between pre-pregnancy BMI and PPWR, thus explanatory factors on the pathway from the exposure to the outcome may be termed as mediators. All explanatory factors adjusted for in the linear regression model in Paper II could therefore be considered as mediators.

Information bias

Information bias occurs when the variables of interest, i.e. the main exposure, covariates and the outcome, are measured with measurement error. Measurement error in a categorical variable is often referred to as misclassification [132]. Measurement error may be caused by instrument error, due to limitations of the measuring device used [132]. This will also include the use of questionnaires and variables that are self-reported [132]. Measurements can have both random and systematic measurement errors [140], and both may cause biased effect estimates [132, 134].

Information on many covariates in this study was self-reported, which may have resulted in underreporting of certain adverse lifestyle-related factors. The different types of measurements in the four papers included in this thesis will be further discussed.

Questionnaires

Ethnicity and country of origin was defined on the background of country of birth of the participating women or country of birth of the mother of the participating women. Hence, we focused on the importance of the participating women’s cultural and lifestyle habits. By using this definition, we also include women who were born and raised in Norway. In all four
papers, we stratified ethnicity into the six groups: Western Europe, South Asia, Middle East, Africa, East Asia and Eastern Europe. Professional translators were used when needed, and approximately 13% of the participants used a translator at V1 [118]. However, the use of translators may be challenging; e.g. participants may find it difficult to trust the translator, and associations of specific words and phrases might differ across groups [141]. Differences between the perceptions of friends or family among Western European versus participants from other ethnic groups might have led to different responses in questions related to family history of diseases, e.g. “Has any in your family hypertension?” or “Has anyone in your family diabetes?”, and may therefore have led to some errors. In addition, the measurement of self-reported chronic diseases may be affected by recall bias.

In all four papers, we used educational level (years) as a *socioeconomic factor*, as education is the most established marker for socioeconomic position in medical research [142, 143]. However, in Paper II we also used occupational class. Education level is relatively easy to measure [144] and the response rates for questions about education has been found to be similar for different ethnic groups [145]. However, the validity of the response rates depends upon if there is a selection bias or not. In case potential study participants were unable to read and understand the information material given prior to inclusion, they would not be included. The strength of the STORK Groruddalen Study was that he information material and questionnaires were translated to eight languages, indicating that women, who have not learned to read or write Norwegian, could participate. In Paper III, early life socioeconomic position (a score that include family occupational class, rooms per person in household and family ownership of car) referring to maternal age of 10 years, was used [51]. However, questions regarding early life experience may be sensitive to recall bias.

Self-reported life-style factors such as diet, physical activity and smoking may be especially prone to over-or underreporting. *Dietary habits* were assessed by a Food Frequency Questionnaire, based on validated questions for Norwegians, but especially developed for this study, with adjustments for known dietary practices of ethnic minority groups [49]. Four robust dietary clusters were detected, and they provide a summary of the variance in dietary habits among the pregnant women [49]. Cluster 1 was defined as having the unhealthiest dietary pattern. The validity of the Food Frequency Questionnaire has not been formally tested, however it was developed by researchers with extensive experience in this field [49]. To obtain a reliable estimate for the average intake of energy, individual food records for 3-7 days are considered more valid [146], as the food records then provide more detailed data on dietary intake. However, this approach was not used in this study because the method is more
time consuming. Despite the limitations of the Food Frequency Questionnaire measurements, the information about dietary habits adds important knowledge about ethnic minority women’s dietary habits.

It is documented that physical inactive persons tend to overestimate their self-reported physical activity level [147]. This must be kept in mind and accounted for when interpreting the data. Given that our positive social norms of the benefits of being physical active, it is possible that pregnant women reported higher physical activity levels in order to appear more favourable to others [148], which may introduce some error when the women report her pre-pregnancy physical activity level.

Despite the use of validated questionnaires on physical activity habits, normal daily life activities are often not included. A British study has shown that for Muslim women of South Asian origin the most time-consuming activities were housework and childcare, indicating that standard questionnaire measures of physical activity may provide an inadequate assessment of physical activity because women may have difficulty in recalling the time and intensity of activities carried out [149], which support our findings.

There were few smokers among the participants, especially among ethnic minority women. However, misclassification of smoking habits might be an error; e.g. women underreporting their smoking habits. In the recent years, the consequences of so called passive-smoking has received increased attention [150], illustrating that if a non-smoking pregnant women is married to a smoker, a random misclassification might occur for this exposure.

Anthropometrics

To reduce errors due to repeated measurements of body height, this variable was only measured at V1. Body height was measured twice, and if the two measurements differed, the average height was used. Pre-pregnancy body weight was self-reported at V1 and body weight was objectively measured at V1, V2 and V3, to the nearest 0.1 kg by a digital scale, calibrated before study start and thereafter biannually (Tanita-BC 418 MA) to eliminate error. It is documented that people with overweight tend to underestimate their weight, in contrast to underweight people who often overestimate their body weight [151]. However, the participants reported their pre-pregnancy body weight after the anthropometric measurements at V1, which might have reduced the probability for error. The use of Tanita-BC 418 MA has been validated in humans [152] and is not thought to result in systematic errors when estimating fat mass (or change in fat mass) in pregnant women [153], however the accuracy
may vary between ethnic groups and the built-in algorithm for estimating fat mass is mostly based on Western white subjects [154-158].

*Self-reported total GWG* by delivery may have caused measurement error, and there may also be the possibility of ethnic difference in reporting GWG. Similar to other studies [22, 159], we relied on information about self-reported pre-pregnancy weight and GWG. Nevertheless, in our study the self-reported pre-pregnancy weight correlated strongly with measured weight at inclusion (r=0.97, P<0.01, mean differences 2.0 kg) [47], indicating fairly good internal validity. *PPWR*, calculated as the difference between objectively measured weight at V3 and self-reported pre-pregnancy weight, may also be affected with some measurement errors. However, GWG from V1 to V2 was objectively measured.

**Blood pressure**

Blood pressure in healthy pregnant women decrease through GW 20 to 26, followed by a progressively increase until term [77]. Nevertheless, as in most population-based studies of pregnant women, we lack information about pre-pregnancy blood pressure values, and we were therefore unable to define the time point for the mid pregnancy dip, as we only had two measurement points during pregnancy. Blood pressure varies during the day according to a 24-hour rhythm [76], however we were unable to account for this, because in our study blood pressure was measured in the morning and did not include ambulatory blood pressure measurements. This probably introduced some minor random measurement error. The presence of systematic bias, however, is unlikely because we do not assume that inaccurate measurements or the influence of the 24-hour rhythm on blood pressure change differed systematically by ethnic background. Although, overall blood pressure readings were within the normal range, these results must be considered in the context of the young women in this cohort. Still, blood pressure changes within and between the ethnic groups were statistically significant.

The GEE [160] is one of the most widely used statistical methods in the analysis of clustered or longitudinal data [161]. The GEE method accounts for possible correlations between the repeated measurements of an individual over time. In Paper III, the blood pressure readings (measured at three time points) were clustered or nested to each woman. The benefit of the GEE approach is that it accounts for data missing completely at random. We first performed analyses for cases with complete blood pressure measurements (n=628). However, using data only from complete cases may introduce bias, and much collected information is left out from the analyses. Therefore, we presented the GEE regression model
of 811 women (based on 2196 blood pressure observations from the three visits), thus analysis by GEE is considered to yield valid results, even if the model includes women with some missing data. In our GEE models we assumed that the data were missing completely at random.

The STORK Groruddalen study was carried out over a two years’ period. Norway with its cold winters may contribute to some seasonal effects on blood pressure. According to Norwegian Meteorological Institute’s climate data from Oslo, in the period 1961 to 1990, the average temperature was -4.3°C in January and 16°C in July. Seasonal climatic changes have been associated with blood pressure variations, and both SBP and DBP levels may increase during winter [162]. A study from of middle-aged men and women from Scotland found that weather temperature can be reflected in blood pressure [163]. In our cohort study the inclusion period was from May 6th 2008 to May 15th 2010. Women were included consecutively at various time points during the year, although as a slow rate during the summer holiday months. However, the timing of inclusion was the same irrespective of ethnicity. We therefor did not adjust for seasonal effects on blood pressure.

Objectively measured physical activity level – mean steps per day

Physical activity was objectively measured by the SenseWear™ Pro3 Armband [127]. To have ones’ physical activity monitored may increase awareness, and the objectively measured physical activity data may be overestimated, and not representing the women’s actual physical activity level. Nevertheless, any measurement bias is expected to be equally distributed across the ethnic groups. Studies have shown that different physical activity monitors may under- and/or overestimate to a various extent, and it is therefore challenging to compare objectively measured physical activity data for different devices [164, 165].

Glucose and gestational diabetes mellitus (WHO 2013)

For the diagnosis and handling of women with GDM in The STORK Groruddalen study the WHO1999 criteria were used (FPG ≥ 7.0 or 2-h PG ≥ 7.8 mmol/L) [47, 89]. HemoCue is authorized for diagnosing of diabetes and have been used in epidemiological research [166]. The laboratory and the on-site analysed glucose values were monitored and compared throughout the study. The procedures were extensively evaluated to reduce bias. In Paper IV, we used the WHO2013 definition for the GDM (FPG level of ≥ 5.1 mmol/L or a 2-h PG level
of ≥8.5 mmol/L) [99]. These new criteria will increase the number of women identified with GDM and consequently increase the burden on the health system.

All biomarker assays have an inherent analytical coefficient of variance (CVa) with % CV defined as the ratio between SD and mean [167]. CVa indicates uncertainty in the measured values. The CVa is estimated by the method imprecision coefficient of variance [168]. The laboratory at Akershus University Hospital did all the analyses (except HemoCue glucose) and the validity of biological measurements, referred to as long-term CVa over at least three months. For glucose (measured with (HemoCue) the CVa was 2.6% (level 3 mmol/L) and 1.4% (level 15 mmol/L), and it was five instrument included in the calculation of CVa. CVa for glucose was relatively small.

Other biomarkers
In Paper IV, we wanted to explore the association between haemoglobin and triglycerides, measured in early pregnancy, and elevated HbA1c postpartum. Triglyceride levels are influenced by lifestyle factors such as diet and physical activity, variation due to blood drawing techniques and analytic variation [169]. Triglyceride levels are also higher during pregnancy [170]. For HbA1c, only one instrument was used in the calculation of CVa, for haemoglobin, four instruments and for triglycerides five instruments included in the calculation of CVa. For HbA1c, haemoglobin and triglycerides, the CVa’s were relatively small (1%, 0.9% and 3% respectively).

6.1.3 External validity
As the internal validity refers to the absence of selection, information and confounding bias, it is important for the external validity or the generalizability [136]. The external validity refers to whether or not the study results can be generalized to other populations outside the study sample [132]. The women in the STORK Groruddalen study were found to be fairly representative for women from the main ethnic groups attending the Child Health Clinic for antenatal care [118], and the samples in Papers I, II III and IV were representative (according to the most important variables) for the women included in STORK Groruddalen study. We therefor think that the results obtained may be applicable to healthy women in reproductive age from the main ethnic minority groups living in the districts studied and probably for those living in Norway. However, these results might also be interesting for cross-country
comparisons, contributing to improved knowledge of women’s health during pregnancy and postpartum, although contextual factors may differ between countries.

The main objectives of the STORK Groruddalen study were to estimate the prevalence of GDM in a multi-ethnic population, and to establish better methods to identify high-risk pregnancies. The overall goal was to reduce complications and adverse health consequences in the future for the mother and the offspring [118], indicating the importance of including a representative sample to ensure high external validity. From another perspective, women with pre-pregnancy diabetes or other diseases necessitating hospital follow-up during pregnancy were excluded, which implies that the study participants only represent healthy pregnant women and not the general population of pregnant women.

Ethnic minority women are generally underrepresented in research projects, partly due to researcher’s perceptions of methodological challenges and language and cultural barriers [171]. However, according to one of our inclusion criteria; regarding communication, we were able to also include women with poor Norwegian language skills, which substantially increases the external validity.

6.2. Main findings

6.2.1 The association between gestational weight gain and postpartum weight retention

In Paper I, GWG was the main outcome. We observed that women from Eastern Europe and Middle East had higher GWG on average than Western European women, especially among the non-smokers. In comparison, results from a review shows that women from Africa tend to have lower GWG compared to Caucasians [172]. To the best of our knowledge this paper is the first to focus on GWG in ethnic minority groups in Europe. Although prevention of excessive GWG is important for all pregnant women, women from Eastern Europe and Middle East might need special attention during pregnancy.

In Paper II we found that significantly more women with an ethnic origin from South Asia, the Middle East and Africa had high PPWR compared with women from Western Europe. To our knowledge there is only one Dutch study that have investigated ethnic differences in PPWR, however this study included women from other ethnic minority groups such as Surinamese, Antillean, Turkish, Moroccan, Ghanaian [21]. Previous studies have shown that high GWG increases women’s risk of becoming overweight in future pregnancies and later in life [19, 173-175]. Additionally, the rate of pregnancy complications such as
GDM, hypertension and pre-eclampsia increases with an increasing pre-pregnancy BMI, as does the risk of complications related to delivery (such as emergency caesarean section) as well as fetal or neonatal complications (such as stillbirth, malformations and macrosomia) [176-180]. Weight gain between pregnancies also have an impact on the risk profile in the next pregnancy [181]. A systematic review has focused on outcomes of GWG, particularly on birthweight and fetal growth, and PPWR with respect to recommendations from IOM [182]. Strong evidence was found to support the relationship between excessive GWG and increased birth weight, and fetal growth (large for gestational age). The authors also found moderate evidence to support the relationship between excessive GWG and PPWR.

Regular physical activity during pregnancy is considered to be associated with benefits for both the mother and the fetus [183]. Pregnant women without contraindications are recommended to be physically active ≥ 30 minutes of moderate intensively activity on most days [184]. Relatively few studies have explored physical activity in pregnancy and postpartum, and most are prone to methodological weaknesses. Pregnant women seem to be less active than before pregnancy [185]. Self-reported activity of moderate-to vigorous intensity is associated with reduced risk of GDM and pre-eclampsia, but high-quality studies using valid, objective measures of physical activity are needed for more detailed exploration of dose-responses. Determinants of physical activity in pregnancy and postpartum women are poorly understood [185, 186], but ethnicity and acculturation are important for subgroups of women [185]. Little is known about activity levels in other multi-ethnic populations than from the U.S. [127].

In a Finnish RCT of pregnant women at increased risk of GDM, it was reported that the strongest predictors for maintaining leisure-time physical activity during pregnancy were pre-pregnancy leisure-time physical activity, education level, working part-time and a spouse’s leisure-time physical activity [183]. In a Norwegian RCT, the effect of prenatal lifestyle intervention on PPWR 12 months postpartum was examined [187]. The intervention included dietary counselling by phone and access to supervised exercise groups at a local gym [187]. The participants in this trial were healthy nulliparous and mostly normal weight ethnic Europeans with higher education [187]. The authors concluded that the intervention had little effect on PPWR 12 months postpartum. Generally, obesity is easier to prevent than to treat. Lessons learnt from RCTs with physical activity as the intervention for pregnant women, further indicate that it is difficult for sedentary women to become more active with regard to frequency and intensity to improve pregnancy outcomes [188, 189]. Therefore promoting an
active lifestyle in young women and among women in reproductive age before they become pregnant seems even more important. Nevertheless, strategies to overcome barriers for being physically active and the benefits of leisure time physical activity during pregnancy and postpartum should be supported. Also low cost community-based interventions, i.e. organized walking groups may be important [190].

6.2.2 Blood pressure changed from early pregnancy to postpartum
In Paper III, we concluded that pregnancy may have a more adverse effect on blood pressure trajectories from early pregnancy to postpartum among non-European women compared with Western Europeans, despite their more favourable blood pressure in early pregnancy. The novelty of this findings is that we are the first to report blood pressure changes from early gestation to postpartum between and within different ethnic groups living in Europe. This study was also the first to analyse a multi-ethnic population in Norway, presenting data for ethnic minority groups (South Asia, Middle East, Africa, East Asia and Eastern Europe).

In line with a Dutch study we observed ethnic differences in blood pressure during pregnancy [29], though the ethnic groups were not directly comparable. In addition, a study from the U.S. observed ethnic differences in blood pressure in pregnancy and postpartum [28]. This cohort consisted of very young women (mean age of 20 years), mainly with African-American ethnicity, indicating that the results probably are not directly generalizable to a European population of pregnant women.

Though overall blood pressure readings in our cohort were within the normal range, blood pressure changes were statistically significant and potentially clinically important. These results must be considered in the context of women in reproductive age and their future risk for adverse blood pressure changes. Pregnancy is considered as a natural stress test for the mother [15], and the more unfavourable effect of pregnancy on blood pressure trajectories from early pregnancy to postpartum in the ethnic minority women is of concern, as higher rates of cardiovascular diseases are observed in some of these groups in Europe when they are middle-aged or older [6, 7].

6.2.3 HbA1c postpartum identify women at high risk for diabetes
The rationale for selecting the risk factors for the models was that the variables were known to be associated with HbA1c. A higher proportion of ethnic minority women had HbA1c ≥ 39 mmol/mol (5.7%) postpartum compared to Western Europeans, irrespective of GDM status.
However, the majority of women with GDM in the index pregnancy had normal HbA1c, at the early follow-up, 14 weeks postpartum. Elevated HbA1c was found in 34% of women with GDM and in 18% among women without GDM.

The prevalence of GDM is increasing and varies between countries, mainly due to different diagnostic criteria used [47, 191-193]. The WHO1999 criteria [89] have been in use until now, however the WHO2013 criteria [99] are now used in more recent publications for the diagnosis of GDM, although not endorsed by all countries or stakeholders. Ethnic differences in the prevalence of GDM have been documented, with a higher prevalence among women from South Asia, Middle East and Africa compared to Western Europeans [47]. Applying the WHO2013 criteria is expected to increase the number diagnosed and thereby the work load on the health care system [194, 195].

GDM is associated with a substantially increased risk of progression to T2DM compared to women who did not develop GDM, indicating the importance of a special care for these women postpartum. Most clinical guidelines recommended OGTT to women with GDM in the index pregnancy 6-12 weeks postpartum [32, 33], despite that several burdens of this test have been identified and the poor adherence to the recommendations [34].

For some women with GDM, hyperglycaemia persists postpartum, therefore postpartum testing is of particular importance [31, 36]. Recently, the NICE and the ADA have proposed to use HbA1c as an alternative a more user friendly test, with a cut-off for HbA1c of ≥ 39 mmol/mol (5.7%) [36, 196]. Studies have shown that ethnic minorities have higher HbA1c levels than the majority population [38, 43]. Africans-Americans and South Asians are referred to as having higher HbA1c levels compared to Caucasian-Americans [38, 43, 44]. The rationale for selecting the risk factors for our models in Paper IV was that the variables were known to be associated with HbA1c.

Although GDM represents a high risk, HbA1c will not identify women with minor disturbances in glucose metabolism. NICE recommends the use of HbA1c postpartum in women with GDM in the index pregnancy. However, our findings indicate that HbA1c discriminates rather poorly between women with previous GDM and those without GDM. Further it can be discussed whether the use of HbA1c early postpartum to identify women at risk for T2DM might not be feasible for all ethnic groups, and that FPG or OGTT should be preferred in these groups. Our results demonstrate that further research is needed before general recommendations to replace postpartum OGTT with the use of HbA1c ≥ 39 mmol/mol (5.7%) to identify women at risk for T2DM should be implemented.
7. CONCLUSIONS

The conclusions related to the specific study questions are as follows:

1. Eastern European and Middle Eastern women had higher GWG on average than Western European women, especially among the non-smokers. Although prevention of excessive GWG is important for all pregnant women, these ethnic groups might need special attention during pregnancy.

2. Significantly more women with ethnic origin from South Asia, Middle East and Africa had high PPWR compared with Western European women.

3. Pregnancy may have a more adverse effect on blood pressure trajectories from early pregnancy to postpartum among non-European women compared with Western Europeans, despite their more favourable blood pressure in early pregnancy.

4. A higher proportion of ethnic minority women had elevated HbA1c at the postpartum visit, irrespective of GDM (WHO2013) status. Elevated HbA1c was found in 34% of women with GDM and in 18% among women without GDM. The majority of women with GDM in the index pregnancy had HbA1c in the normal range 14 weeks postpartum.

In this thesis ethnic differences in women’s health from early pregnancy to postpartum are described. The ethnic minority groups we have studied are becoming a substantial proportion of the population in many European countries. Given that pregnancy can be considered as a natural stress test for women’s future risk for T2DM and cardiovascular disease, the results from our four papers confirm the assumption that ethnic minority women have a more adverse metabolic profile compared with Western Europeans also early postpartum. To reduce the ethnic differences in cardiovascular disease and T2DM observed in middle aged women in Europe, the health of women from the high risk groups needs more attention from health care providers early in life, not least during pregnancy and postpartum. All thought trial evidence is sparse about the long term effects of lifestyle interventions in this phase of life, the rationale seems strong to promote and support targeted lifestyle interventions such as a healthy diet and more physical activity.
8. FUTURE PERSPECTIVES

The postpartum period may be an underused window of opportunity to implement targeted interventions in vulnerable groups, to reduce their future risk of T2DM and cardiovascular disease. As South Asians in general have more adiposity for the same BMI than Western Europeans [197], lower BMI cut-offs to define health risks have been suggested [198]. In line with this, more research is needed to explore if the current recommendations for GWG apply equally for all ethnic groups to reduce their risk of GDM, PPWR and future obesity and T2DM. In addition to long-term studies to explore the consequences of the in-pregnancy effects that we have described, RCTs to explore effective interventions that may prevent these unhealthy effects in different ethnic groups are needed.
REFERENCES


Appendix
CRF 1. TRIMESTER - SKJEMA 1

Kode intervjuer  
Intervjuers initialer  
Undersøkelsesdato  
Swangerskapsuke  

Kvinnens fødselsdato  
Bosteds-postnummer  
Undersøkelsesbydel  

Fyll ut hos alle ved første besøk på helsestasjonen i graviditeten - gjelder nesten uten unntak spørsmål som stilles for å fylle ut helsekortet - gjøres samtidig med det, unngår da å sperre om det samme to ganger. Hvis kvinne ikke inkluderes, makuleres skjemaet. Kommentarfelt til slutt.

Forklaring til utfyllingen:
Bruk blå eller svart kulepenn. De fleste steder settes kryss eller tall. Bruk allerede store bokstaver og en bokstav per rute. Sett kryss mest mulig midt i avkryssningsboksen. Dersom feil i utfyllingen, marker dette ved å sette tre streker over boksen og kryss av på vanlig måte i den riktige boksen. Dersom behov for å notere ned ytterligere informasjon ut over hva det er avsett plass til på skjemaet, kan du notere dette i margen. Bare sør for at du ikke skriver i avkryssningsboksene eller notatfelter. Eksempel på utfylling:

☐ ja  ☐ nei  21256 gram

Tekst i kursiv under spørsmålet, før svarkategoriene, er informasjon til intervjueren og skal ikke leses opp for kvinnnen.

DEMOGRAFI

1. Hvilken sivilstand har du nå?
☐ Gift  ☐ Partnerskap  ☐ Samboer  ☐ Ekslib  ☐ Skilt/separert  ☐ Enke  ☐ Annet

2. Hvilken utdannelse har du nå?
Kryss først av for høyeste fullførte eller avsluttede-, og evt. pågående utdanning, og angi deretter antall år for disse kategoriene. Se evt. prosedyrebok 2.4.2

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<tr>
<td></td>
<td>Grunnskole (7-9-årig skolegang)</td>
<td>Fullført</td>
<td>Holder på med</td>
</tr>
<tr>
<td></td>
<td>1-2-årig gymnas/videreg./yrkesskole(10-11år)</td>
<td>Fullført</td>
<td>Holder på med</td>
</tr>
<tr>
<td></td>
<td>3-årig gymnas/videreg./yrkesskole(12år)</td>
<td>Fullført</td>
<td>Holder på med</td>
</tr>
<tr>
<td></td>
<td>Distrikthøgskole, universitet, inntil 4 år (Sykepleier, lærer, Bachelor)</td>
<td>Fullført</td>
<td>Holder på med</td>
</tr>
<tr>
<td></td>
<td>Høyskole, universitet &gt; 4 år (Knivdøg, Master, embedseksamen)</td>
<td>Fullført</td>
<td>Holder på med</td>
</tr>
</tbody>
</table>
3. Hva var arbeidssituasjonen for deg da du ble gravid?

- [] Under utdanning
- [] Njememværende
- [] Arbeidssøkende/permittert
- [] Aftøring/ufør
- [] Ansatt i offentlig virksomhet
- [] Ansatt i privat virksomhet
- [] Annet

Hvis annet, hva?:

   Angi yrke/stillingstitel

   Angi yrkesiffer, normalt med 4 siffer, i forhold til STRIKT-klassifikasjonen. Se prosedyrebok 2.4.2, eventuelt fylte. 1.siffer fremgår av nummer på hovedklassen. Hvis ikke det siste siffer er kjent, skriv de 3 første og la den siste boksen stå tom.

1. Administrative ledere og politikere

2. Akademiske yrker

3. Yrker med kortere høyskole og universitetsutdanning og teknikere

4. Kontor- og serviceyrker

5. Salgs-, service- og omsorgsyrker

6. Yrker innen jordbruk, skogbruk og fiske

7. Håndverkere

8. Prosess- og maskinoperatører, transportarbeidere og

9. Yrker uten krav til utdanning

0. Militære yrker og uoppgitt

Njememværende

Hvis yrket ikke er klassifiserbart, angi:
5. Kviletet trossamfunn/relligion tilhører du? Se evt. prosedyrebok 2.4.2

- [ ] Kristne kirkesamfunn
- [ ] Islam
- [ ] Den Ortodokse kirkon
- [ ] Hinduisme
- [ ] Den Koptiske kirken
- [ ] Sikhisme
- [ ] Den Katolske kirken
- [ ] Buddhism
- [ ] Adventister
- [ ] Taoisme
- [ ] Jehovas vitner
- [ ] Ingen trossamfunn
- [ ] Mormonene

* Føllesbetegnelse, for frimenigheter og statskirken i Norge, samt den engl.anse kirken.
** Speiselt Etiopía, Eritrea og Egypt.
*** Tradisjonell kinesisk religion. Spesielt kinesere og vietnamesere.

6. Hvilet land er du født i?

- [ ] Sverige
- [ ] Marokko
- [ ] Eritrea
- [ ] Født i Norge av to norske foreldre
- [ ] Danmark
- [ ] Somalia
- [ ] Etiopia
- [ ] Født i Norge av to utenlandske foreldre
- [ ] Storbritannia
- [ ] Polen
- [ ] Ghana
- [ ] Født i Norge av en norsk + utenlandske foreldre
- [ ] Tyskland
- [ ] Rusland
- [ ] Nigeria
- [ ] Tyrkia
- [ ] Serbia
- [ ] Annet europeisk land
- [ ] Irak
- [ ] Albania
- [ ] Annet afrikansk land
- [ ] Iran
- [ ] Kosovo
- [ ] Annet asiatisk land
- [ ] Pakistan
- [ ] Kina
- [ ] Annet amerikansk land
- [ ] Sri Lanka
- [ ] Thailand
- [ ] Oceania/Australia
- [ ] Vietnam
- [ ] Chile

7. Statsborgereskap i hvilet land?

- [ ] Sverige
- [ ] Marokko
- [ ] Eritrea
- [ ] Født i Norge av to norske foreldre
- [ ] Danmark
- [ ] Somalia
- [ ] Etiopia
- [ ] Født i Norge av to utenlandske foreldre
- [ ] Storbritannia
- [ ] Polen
- [ ] Ghana
- [ ] Født i Norge av en norsk + utenlandske foreldre
- [ ] Tyskland
- [ ] Rusland
- [ ] Nigeria
- [ ] Tyrkia
- [ ] Serbia
- [ ] Annet europeisk land
- [ ] Irak
- [ ] Albania
- [ ] Annet afrikansk land
- [ ] Iran
- [ ] Kosovo
- [ ] Annet asiatisk land
- [ ] Pakistan
- [ ] Kina
- [ ] Annet amerikansk land
- [ ] Sri Lanka
- [ ] Thailand
- [ ] Oceania/Australia
- [ ] Vietnam
- [ ] Chile
Unikt pas. løpenummer:  

Hvis etnisk skandinavisk, gå til spørsmål 12.

8. Hvilken etnisk gruppe (felles språk, kultur, historie) føler du at du tilhører?
Angi land:

9. Hva er ditt noregskommune?
- Urdu
- Arabisk
- Somalisk
- Tamilisk
- Tyrkisk
- Vietnamesisk
- Sorani
- Kinesisk
- Persisk
- Fransk

- Spansk
- Portugisisk
- Engelsk
- Tysk
- Flamsk/Madrilansk
- Annet europeisk språk
- Annet afrikansk språk
- Annet asiatisk språk
- Annet

10. Hvis ikke etnisk skandinavisk: Hvor gode vil du si dine norskunnskaper er?
- Svært gode
- Gode
- Middels gode
- Litt dårlige
- Dårlige

11. Bruker du vanligvis tank når du er hos lege?
- Ja, profesjonell
- Ja, familie/venn
- Nei

12. Har du vært gravid tidligere? (Tenk også på svangerskap som endte med aborter eller dødfødsler)
- Nei
- Ja

Hvis nei, gå til spørsmål 14

Hvis ja:
Antall levende fødte:  
Antall dødfødte:  
Antall spontanaborter:  
Antall provoserte aborter:  
Antall svangerskap utenfor liv:  

Unikt pas. løpenummer: 

13. Jeg vil nå spørre deg om tidligere svangerskap som har vært mer enn 22 uker.

Hvis mor enn 1 barn per svangerskap, la tvilling i telle som det aktuelle nummer på barnet, tvilling 2 som neste barn.

1. barn:

<table>
<thead>
<tr>
<th>Fødselsår:</th>
<th>Sangerskapsåre for fødsel:</th>
<th>Fødselsvekt i gram:</th>
<th>Kjønn:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Gutt □ Jenta</td>
</tr>
</tbody>
</table>

Fødested:

- □ Norge
- □ Eget fødeland
- □ Annet

Hvis flerfødselsfødsel:

- □ Twilinger
- □ Vanlig vaginal
- □ Tang
- □ Vakuum

Forløsningsmetode:

- □ Ja
- □ Nei

Frisk i første leveuko?:

- □ Hvis nei:
  - □ Frisk nå
  - □ Syk nå
  - □ Død

2. barn:

<table>
<thead>
<tr>
<th>Fødselsår:</th>
<th>Sangerskapsåre for fødsel:</th>
<th>Fødselsvekt i gram:</th>
<th>Kjønn:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Gutt □ Jenta</td>
</tr>
</tbody>
</table>

Fødested:

- □ Norge
- □ Eget fødeland
- □ Annet

Hvis flerfødselsfødsel:

- □ Twilinger
- □ Vanlig vaginal
- □ Tang
- □ Vakuum

Forløsningsmetode:

- □ Ja
- □ Nei

Frisk i første leveuko?:

- □ Hvis nei:
  - □ Frisk nå
  - □ Syk nå
  - □ Død

3. barn:

<table>
<thead>
<tr>
<th>Fødselsår:</th>
<th>Sangerskapsåre for fødsel:</th>
<th>Fødselsvekt i gram:</th>
<th>Kjønn:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Gutt □ Jenta</td>
</tr>
</tbody>
</table>

Fødested:

- □ Norge
- □ Eget fødeland
- □ Annet

Hvis flerfødselsfødsel:

- □ Twilinger
- □ Vanlig vaginal
- □ Tang
- □ Vakuum

Forløsningsmetode:

- □ Ja
- □ Nei

Frisk i første leveuko?:

- □ Hvis nei:
  - □ Frisk nå
  - □ Syk nå
  - □ Død

4. barn:

<table>
<thead>
<tr>
<th>Fødselsår:</th>
<th>Sangerskapsåre for fødsel:</th>
<th>Fødselsvekt i gram:</th>
<th>Kjønn:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Gutt □ Jenta</td>
</tr>
</tbody>
</table>

Fødested:

- □ Norge
- □ Eget fødeland
- □ Annet

Hvis flerfødselsfødsel:

- □ Twilinger
- □ Vanlig vaginal
- □ Tang
- □ Vakuum

Forløsningsmetode:

- □ Ja
- □ Nei

Frisk i første leveuko?:

- □ Hvis nei:
  - □ Frisk nå
  - □ Syk nå
  - □ Død
5. Barn:

<table>
<thead>
<tr>
<th>Fødselsår:</th>
<th>Svar i kronen for fødsel:</th>
<th>Fødselsvægt i gram:</th>
<th>Kjønn:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Gutt □ Jente</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fødested:</th>
<th>Hvis flerlingsfødsel:</th>
<th>Forlønnsmetode:</th>
<th>Frisk i første leveuke?:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Norge</td>
<td>□ Twillingere</td>
<td>□ Vanlig vaginal</td>
<td>□ Ja □ Nei</td>
</tr>
<tr>
<td>□ Eget fødeeland</td>
<td>□ Trillingere</td>
<td>□ Tang</td>
<td>□ Nei □ Syk nå</td>
</tr>
<tr>
<td>□ Annet</td>
<td></td>
<td>□ Vakuum</td>
<td>□ Død □ Keisersnitt</td>
</tr>
</tbody>
</table>

*Hvis mer enn 5 barn - legg til ekstraark og stift dette sammen med resten.*


<table>
<thead>
<tr>
<th>Diabetess type 1</th>
<th>Ja</th>
<th>Nei</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetess type 2</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Stoffskiftesykdom *</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Astma</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Allergi</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Gjentatte urinveisinfeksjoner</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Kronisk nyresykdom</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Vedvarende høyt blodtrykk</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Leddgikt/Bechterow</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Hjertesykdom *</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Epilepsi</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Underlivs-sykdom/operasjon *</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Ufrovligg barnløshet &gt; 1 år</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Sykdom i mage/tarm</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Psykisk sykdom *</td>
<td>Ja</td>
<td>Nei</td>
</tr>
<tr>
<td>Annet</td>
<td>Ja</td>
<td>Nei</td>
</tr>
</tbody>
</table>

15. Hvor gammel var du da du fikk din første menstruasjon?

Angi alder i år: [ ]
16. Har du hatt svangerskapsdiabetes i tidligere svangerskap?

Evis ja - i hvilke(t) svangerskap? I hvilken svangerskapsåke fikk du stilt diagnosen? Brukte du insulin?

<table>
<thead>
<tr>
<th>Svangerskapsåke</th>
<th>Insulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. svangerskap</td>
<td>□</td>
</tr>
<tr>
<td>2. svangerskap</td>
<td>□</td>
</tr>
<tr>
<td>3. svangerskap</td>
<td>□</td>
</tr>
<tr>
<td>4. svangerskap</td>
<td>□</td>
</tr>
<tr>
<td>5. svangerskap</td>
<td>□</td>
</tr>
<tr>
<td>6. svangerskap</td>
<td>□</td>
</tr>
<tr>
<td>7. svangerskap</td>
<td>□</td>
</tr>
<tr>
<td>8. svangerskap</td>
<td>□</td>
</tr>
</tbody>
</table>

Ja  □  Nei  □

17. Er det arvelige sykdommer i familien?

- Ingen kjente  □
- Ja  □

Hvis ja, angi:

- Hjertekar sykdom  □
- Psykisk sykdom  □
- Diabetes  □
- Lædesyke  □
- Kreftsykdom  □
- Muskelsyke  □
- Neurologisk sykdom  □
- Annet  □

Hvis annet, angi:

Hvis diabetes eller hjertesykdom, henvis til CRF 1.3 for mer detaljer.

18. Er du og barnets far i slekt?

- Ja  □  Nei  □

Hvis ja, er barnsfaren din:

- Føtter  □
- 3-mennesk  □
- 4-mennesk  □
- Onkel  □
- Nevs  □
- Annet  □

19. Har du noen gang røykt/brukt snus?

Røyk:

- Aldri  □
- Av og til  □
- Ja, daglig  □

Snus:

- Aldri  □
- Av og til  □
- Ja, daglig  □

Hvis aldri på begge, gå til spørsmål 23.

20. Røykte du/brukte du snus de siste 3 månedene før du ble gravid denne gangen?

Røyk:

- Aldri  □
- Ja, av og til  □
- Ja, daglig  □

Snus:

- Aldri  □
- Ja, av og til  □
- Ja, daglig  □
21. Røyker du/snuser du nå?
   Røyk:  ☐ Aldri  ☐ Ja, av og til  ☐ Ja, daglig
   Snus:  ☐ Aldri  ☐ Ja, av og til  ☐ Ja, daglig

22. Hvor gammel var du da du begynte å røyke? Angi alder:  
   Hvis du har røykt tidligere, men ikke røyker nå, hvor gammel var du da du sluttet? Angi alder:  

23. Ditt alkoholforsøk:
   Sidste 3 snud før svangerskap:
   ☐ Aldri  ☐ Av og til  ☐ Ja, daglig
   Antall alkoholenheter vanligvis:
   Nå:
   ☐ Aldri  ☐ Av og til  ☐ Ja, daglig
   Antall alkoholenheter vanligvis:
   Antall alkoholenheter - 1 enhet er: 1 glass vin, 0,33l ai, 1 likerglass

24. Siste menstruasjons 1.bledningsdag:
   Dato:  

25. Termin før ultralyd:
   Dato:  ☐ Sikker  ☐ Usikker

26. Anslå din vekt i kg:
   Rett før du ble gravid:  
   ☐ 25 år gammel:  
   ☐ 18 år gammel:  

27. Anslå din høyeste og laveste vekt (i kg) utenom graviditet etter at du var 16 år.
   Høyeste:  
   Laveste:  
   Kommentar hvis forskjell >20kg

EVENTUELLE VIKTIGE SUPPLERENDE KOMMENTARER TIL SVAR PÅ SPØRSMÅL:

Spørsmålsnummer:  ☐  Kommentar  

Spørsmålsnummer:  ☐  Kommentar  

Spørsmålsnummer:  ☐  Kommentar  

Spørsmålsnummer:  ☐  Kommentar  

Du kan også gi ytterligere utfyllende kommentarer her:

TAKK FOR AT DU HAR TATT DEG TID TIL Å SVARE PÅ SPØRSMÅLENE!
FORM 1.1 (CRF 1.1)
(For information: If*: The interviewer must fill in the right category/code)

1. What is your current marital status?
□ Married □ Partnership □ Cohabitant □ Single □ Divorced/separated □ Widow □ Other

2. What is your level of education?

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Completed</th>
<th>Attending now</th>
<th>No. of years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 7 years’ schooling</td>
<td>□</td>
<td>□</td>
<td>□□</td>
</tr>
<tr>
<td>Primary school (7-9 years’ schooling)</td>
<td>□</td>
<td>□</td>
<td>□□</td>
</tr>
<tr>
<td>1-2 years’ upper sec./vocational school (10-11 yrs)</td>
<td>□</td>
<td>□</td>
<td>□□</td>
</tr>
<tr>
<td>3-year upper sec./vocational school (12 years)</td>
<td>□</td>
<td>□</td>
<td>□□</td>
</tr>
<tr>
<td>District college, university, up to 4 years (Nurse, teacher, Bachelor’s degree)</td>
<td>□</td>
<td>□</td>
<td>□□</td>
</tr>
<tr>
<td>University college, university, more than 4 years (Master’s, PhD)</td>
<td>□</td>
<td>□</td>
<td>□□</td>
</tr>
</tbody>
</table>

3. What was your work situation when you became pregnant?
□ Attending educational institution
□ Housewife
□ Job-seeker/laid off
□ Rehabilitation/disabled
□ Employed in the public sector
□ Employed in the private sector
□ Other If other, what?:……………………

4. What is your occupation? State occupation/job title* ……………………………
(Answer even if you are temporarily not working due to illness/leave)

5. Which religious community/religion do you belong to?* ………………………………

6. Which country were you born in? Indicate which country*……………………………
If Norway:
□ Born in Norway of two Norwegian parents
□ Born in Norway of two foreign-national parents
□ Born in Norway of one Norwegian + one foreign-national parent

7. Citizenship in which country? Indicate which country*……………………………
8. (If the country of birth and ethnic group do not appear to agree (e.g. “Indian” but born in Kenya, Uganda, South-Africa) Which ethnic group (common language, culture, history) do you feel you belong to?: …………………………………………………………………………..

9. What is your native language? State language* ………………………………………

10. How do you rate your Norwegian language skills?
 □ Very good □ Good □ Fair □ Not very good □ Poor

11. Do you normally use an interpreter for doctor’s appointments?
 □ Yes, professional □ Yes, family/friend □ No

12. Have you been pregnant before? (Also consider pregnancies that ended in miscarriage/abortion or with a stillbirth)
 □ No □ Yes If yes: 
   Number born alive: □□ Number stillborn: □□ Number of spontaneous miscarriages: □□
   Number of induced abortions: □□ Number of ectopic pregnancies (outside the uterus): □□

13. I am now going to ask you about earlier pregnancies that have lasted more than 22 weeks.
(If more than 1 child per pregnancy, count twin 1, twin 2.)

(For each child)
Year of birth: □□□□ Pregnancy week for birth □□ Baby’s weight in grams □□□□
Gender: Boy □ Girl □ Place of birth: □ Norway □ Own native country □ Other
Method of delivery: □ Normal vaginal □ Forceps □ Vacuum □ Caesarean section
If multiple birth: □ Twins □ Triplets
Healthy the first week?: □ Yes □ No If no: □ Healthy now □ Ill now □ Dead

14. Do you have/have you had any of the following illnesses?
(Some diagnoses will mean that the woman cannot take part in the study)
(If yes, state the year the diagnosis was made).

<table>
<thead>
<tr>
<th>Condition</th>
<th>Yes</th>
<th>No</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes type 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes type 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allergy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeated urinary tract infections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic liver disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prolonged high blood pressure</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Heart disease □ Yes □ No □□□□
Arthritis/Bechterew’s disease □ Yes □ No □□□□
Epilepsy □ Yes □ No □□□□
Disease of the uterus/operation □ Yes □ No □□□□
Involuntary infertility more than 1 year □ Yes □ No □□□□
Mental illness □ Yes □ No □□□□
Abdominal/intestinal disorder □ Yes □ No □□□□
Metabolism disorder □ Yes □ No □□□□
Other: ………… □ Yes □ No □□□□

15. How old were you when you menstruated for the first time? State age in years: □□

16. Have you had pregnancy diabetes during a previous pregnancy?
If yes - which pregnancy? In which pregnancy week were you diagnosed? Did you use insulin?

<table>
<thead>
<tr>
<th>Pregnancy week</th>
<th>Insulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st pregnancy</td>
<td>□□</td>
</tr>
<tr>
<td>2nd pregnancy</td>
<td>□□</td>
</tr>
<tr>
<td>3rd pregnancy</td>
<td>□□</td>
</tr>
<tr>
<td>4th pregnancy</td>
<td>□□</td>
</tr>
<tr>
<td>5th pregnancy</td>
<td>□□</td>
</tr>
<tr>
<td>6th pregnancy</td>
<td>□□</td>
</tr>
<tr>
<td>7th pregnancy</td>
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<tr>
<td>8th pregnancy</td>
<td>□□</td>
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17. Are there any inheritable diseases in the family?
□ None I know of □ Yes If yes, tick the appropriate box/boxes:

□ Cardio-vascular disease □ Diabetes
□ Cancer □ Neurological disease
□ Mental illness □ Arthritis
□ Muscular disorder □ Other If other, state: ……………………

18. Are you and the father of the child related?
□ Yes □ No

If yes, is the father of the child your:
19. Have you ever smoked/used snus?
Smoked: □ Never □ Sometimes □ Yes, daily
Snus: □ Never □ Sometimes □ Yes, daily

If the answer is never to both, go to question 23.

20. Did you smoke/use snus during the last 3 months before this pregnancy?
Smoking: 
□ Never Number of cigarettes/daily □ Never
□ Yes, sometimes □□
□ Yes, daily □□

Snus: 
□ Never □ Never
□ Yes, sometimes □□
□ Yes, daily □□

21. Do you smoke/use snus now?
Smoking: 
□ Never Number of cigarettes/daily □ Never
□ Yes, sometimes □□
□ Yes, daily □□

Snus: 
□ Never □ Never
□ Yes, sometimes □□
□ Yes, daily □□

22. How old were you when you started to smoke? State age: □□
If you have smoked previously, but do not smoke now, how old were you when you quit?
State age: □□

23. Your alcohol consumption:
Last 3 months before pregnancy:
□ Never □ Sometimes □ Yes, daily Amount of alcohol units, normally: □□

Now: □ Never □ Sometimes □ Yes, daily Amount of alcohol units, normally □□

(Number of alcohol units – 1 unit is: 1 glass of wine, 0.33 litres of beer, 1 glass of liquor)

24. Last menstruation’s 1st day of bleeding:
Date:…… .....

25. Term before ultrasound:
Date:………... □ Certain □ Uncertain

26. Estimate your weight in kilos:
Right before you became pregnant: □□□ 25 years old: □□□ 18 years old: □□□
27. Estimate your highest and lowest weight (in kilos), not including pregnancies, after you turned 18 years of age.

Highest: □□□
Lowest: □□□
Comment if the difference as greater than 20 kilos ………………………………………

THANKS FOR TAKING THE TIME TO ANSWER THESE QUESTIONS!
STORK Groruddalen

CRF 1. TRIMESTER - SKJEMA 2

Kode intervjuer
Intervjuers initialer
Undersøkelsesdato
Svangerskapsuke
Kvinners fødselsdato
Bosteds-postnummer
Undersøkelsesbydel


Forklaring til utfyllingen:
Bruk blå eller svart kulepenn. De fleste steder settes kryss eller tall. Bruk ellers store bokstaver og en bokstav per rute. Sett kryss mest mulig midt i avkryssningsboksen. Dersom feil i utfyllingen, marker dette ved å sette tre streker over boksen og kryss av på vanlig måte i den riktige boksen. Dersom behov for å notere ned ytterligere informasjon ut over hva det er avsatt plass til på skjemaet, kan du notere dette i margen. Bare sørge for at du ikke skriver i avkryssningsboksene eller notatfelter. Eksempel på utfylling:

☐ ja ☐ nei 2256 gram

NB: Tekst i kursiv under spørsmålet, før svarkategoriene, er informasjon til intervjueren og skal ikke leses opp for mannen.

DEMOGRAFI

31. Hvis i lønnen arbeid - hvor stor stillingsandel hadde du de siste 3 måneder før du ble gravid?

Hvor stor stillingsandel har du nå? Gjelder avhengig av evt. sykemelding

Før svangerskapet %
Nå %

32. Hvis i lønnen arbeid - er du fraværende fra ditt vanlige arbeid nå?

☐ Ja ☐ Nei ☐ Delvis

33. Hvis svart ja eller delvis på spørsmål 32: Hva er årsaken til fraværet? Sett evt. flere kryss:

☐ Sykemelding ☐ Permisjon ☐ Sykt barn ☐ Annet

34. Hvis i lønnen arbeid - har du vært sykemeldt i tilsammen mer enn 2 uker i løpet av dette svangerskapet? Se evt. prosedurebok 2.4.2

Helt sykemeldt:

Hvis ja, angi ca antall uker: ☐
Hvis ja, angi ca antall uker: ☐

   Angi yrkessiffer, normalt med 4 siffer, i forhold til STRUK-klassifikasjonen. Se eget høftet.
   1.siffer framgår av nummer på hovedklassen. Hvis ikke det siste siffer er kjent, skriv da 3 første
   og la den siste boksen stå tom. Se evt. prosedyrehok 2.4.2

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<td>2. Akademiske yrker</td>
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37. Tenk på deg selv som 10 åring. Hvor mange oppholdserom var det i leiligheten/boligen deres?

   Ikke regn med kjøkken og evt. bad. Angi antall rom

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Hvor mange personer bodde i leiligheten/boligen?

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Angi antall personer

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Ride din mor/far evt. dine foresatte bil?

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<th>Nei</th>
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38. Hva var din mors alder da du ble født?

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39. Hvor mange søsken har du? (Med samme mor)

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Evt. halvsøkken? Angi antall evt.

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40. Hvilket nummer i søkenflokken var du?

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(Med samme mor)

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41. Hvor lenge har du samlet bodd i: (Angi antall år)

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Døn bydelen du nå bor i:     Oslo:     
42. Hvor bodde du det meste av tiden før du fylte 16 år?
Se evt liste over bydaler i områder i Oslo i prosedyrebok 2.4.2. Ved * eller ** gå til aktuell mørkred

☐ I samme bydel som nå
☐ I annen bydel/område i Oslo*
☐ I annet fylke i Norge
☐ Utenfor Norge **

*Angi evt. tidligere bydel:
☐ Indre Øst (Gamle Oslo, Sagmo, Torshov, Grunerløkka-Sofienberg)
☐ Indre Vest (Frogner, Majorstua-Uranienborg, St.Haugen)
☐ Ytre Øst (Grunerulden, Helsfyr, Ørlandet, Lambertseter, Østeråker Nordstrand)
☐ Ytre Vest (Ullern, Røa, Vinderen, Sogn, Grefsen-Kjelsås, Nordstrand, Eikbergs-Beitelandet)

**Nvis utenfor Norge:
☐ I eget fødeland
☐ Annet

43. Hva deler du husholdning med? Sett evt. flere kryss

☐ Ektefelle/samboar
☐ Foreldre
☐ Sigerforeldre
☐ Barn
☐ Ingen
☐ Andre, beskriv:

44. Hvor mange personer er det i husholdningen? Tell med deg selv

Antall personer 16 år eller over
Antall personer 12-17 år

Antall personer 6-11 år
Antall personer under 6 år

45. Hvor mange oppholderom (ikke regnet med kjøkken og øv dag) er det i leiligheten/boligen dør du bor? Angi antall rom

Boligtype:
☐ Leilighet i blokk/hus med flere boenheter, som 4mannabolig
☐ Rekkehus
☐ Enetabolig
☐ Annet

☐ Eier eller leier du/dør boligen?
☐ Eier
☐ Leier

Hvis født i Norge av to norske foreldre, gå til sp. 52

46. Hvis 1. generasjons innvandrere: Hvor lenge har du bodt i Norge?
Angi antall år

Hvis mor ikke er 1. eller 2. generasjons innvandrere, gå til sp. 52

47. Er du etterkommer etter innvandrerforeldre/foreldre som ikke er født i Norge?

☐ Ja
☐ Nei

Hvis ja:
☐ Født i Norge, men begge foreldre født i utlandet
☐ Utenlandsfødt med en norskfødt forelder
☐ Norskfødt med en utenlandsfødt forelder
☐ Utenlandskfødt med utenlandske foreldre
☐ Utenlandsadoptert
Unikt pas. løpenummer: 

Hvis du er født i Norge, men begge foreldre er født i utlandet, angi fødsland for dine foreldre:

Fødsland for din mor:
- [ ] Norge
- [ ] Vietnam
- [ ] Chile
- [ ] Sverige
- [ ] Marokko
- [ ] Eritrea
- [ ] Danmark
- [ ] Somalia
- [ ] Støpia
- [ ] Storbritannia
- [ ] Polen
- [ ] Ghana
- [ ] Tyskland
- [ ] Russland
- [ ] Nigeria
- [ ] Tyrkia
- [ ] Serbia
- [ ] Annet eur. land
- [ ] Irak
- [ ] Albania
- [ ] Annet afrik. land
- [ ] Iran
- [ ] Kosovo
- [ ] Annet asi. land
- [ ] Pakistan
- [ ] Kina
- [ ] Annet amer. land
- [ ] Sri Lanka
- [ ] Thailand
- [ ] Oceania/Australia

Fødsland for din far:
- [ ] Norge
- [ ] Vietnam
- [ ] Chile
- [ ] Sverige
- [ ] Marokko
- [ ] Eritrea
- [ ] Danmark
- [ ] Somalia
- [ ] Støpia
- [ ] Storbritannia
- [ ] Polen
- [ ] Ghana
- [ ] Tyskland
- [ ] Russland
- [ ] Nigeria
- [ ] Tyrkia
- [ ] Serbia
- [ ] Annet eur. land
- [ ] Irak
- [ ] Albania
- [ ] Annet afrik. land
- [ ] Iran
- [ ] Kosovo
- [ ] Annet asi. land
- [ ] Pakistan
- [ ] Kina
- [ ] Annet amer. land
- [ ] Sri Lanka
- [ ] Thailand
- [ ] Oceania/Australia

Sp 48 gjelder hvis mor er 1. og 2. generasjons innvandrere (person som selv er født utenfor Norge eller med en eller begge foreldrene født utenfor Norge). Gjelder ikke hvis adoptert.

48. Hvis ikke født i Norge og ikke norske foreldre, på hvilket grunnlag kom du til Norge?
- [ ] Arbeid
- [ ] Ekteskap med norsk
- [ ] Familiegrunnforening
- [ ] Flyktning
- [ ] Opphold på humanitært grunnlag
- [ ] Annet

49. Hvis 1. eller 2. generasjons innvandrere (uten norske foreldre) Hvor ofte har du i løpet av det siste året:
- Lest avis på eget språk/foreldres morsmål
- Daglig
- Ukentlig
- Sjeldere
- Aldri
- Lest norsk avis/søtt på norsk TV
- Daglig
- Ukentlig
- Sjeldere
- Aldri
- Hatt besøk av minst en nordmann
- Daglig
- Ukentlig
- Sjeldere
- Aldri
- Fått hjelp/støtte av minst en nordmann
- Daglig
- Ukentlig
- Sjeldere
- Aldri
- Deltatt i møter arrangert av egne/foreldres
- Daglig
- Ukentlig
- Sjeldere
- Aldri

50. Har du hørt i landet opplyst å bli nektet å lede eller kjøpe bolig på grunn av din innvandrerbakgrunn?
- [ ] Ja, helt sikkert
- [ ] Ja, jeg har mistanke om det
- [ ] Nei
- [ ] Vet ikke
51. Har du for i landet i løpet av de siste 5 årene opplevd å få nei til en jobb du søkte på grunn av din innvandrerbakgrunn?

☐ Ja, helt sikkert  ☐ Ja, jeg har mistanke om det  ☐ Nei  ☐ Vet ikke

**AKTUELLE SVANGERSKAP**

52. Hvordan var helsen din de siste 3 måneder før svangerskapet?

☐ Dårlig  ☐ Ikke helt god  ☐ God  ☐ Svært god

53. Var dette svangerskapet planlagt?

☐ Ja  ☐ Nei  ☐ Delvis  Evt. kommentar:

54. Hvis planlagt, hvor langt har du prøvd å bli gravid? Angi antall måneder

55. Har du i dette svangerskapet smerte i noen av de følgende kroppsdeler?

Intervjuer før kvinnen peke på aktuelle sted på egen kropp og plansje, se prosedyrebok 2.4.2. Søtt kryss for aktuell lokaliserjon. Du kan sette flere kryss.

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<td>Nei</td>
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56. Denk tilbake på de siste 14 dager. Har du tatt/brukt tran/trankapsler og/eller andre kosttilskudd i løpet av disse dagene? Hvis ja, angi antall kapsler/tabletter/skjær per dag på rett frekvens

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57. Har du brukt faste medisiner, inkludert prøvemøn, de siste 3 måneder før svangerskapet?
Angi legemiddel navn - og evt. sykdom/plage

58. Har du brukt faste medisiner i dette svangerskapet?
Angi legemiddel navn - for sykdom/plage
59. Har du opplevd noen av de følgende livshendelser eller problemer i løpet av de siste 6 månedene?

- Du har selv vært utsatt for alvorlig sykdom, skade eller overfall
- En i din nærmeste familie (mor eller far, ektefelle/samboer, barn eller søsken) har vært alvorlig syk, utsatt for skade eller overfall
- En i din nærmeste familie (mor eller far, ektefelle/samboer, barn eller søsken) er avgått ved døden
- Du er separert/skilt, eller har brutt et langvarig forhold
- Du har hatt problemer/store bekymringer med barna dine (oppdragelse, skole, disiplin)
- Du har blitt arbeidsskadegjort, eller vært forgjeves etter jobb i mer enn 1 måned
- Du har opplevd andre belastende forhold, som et alvorlig problem med en nær venn, nabo, slektning eller partner, alvorlige økonomiske bekymringer, noe du sett stor pris på ble mistet eller stjålet, dødsfall hos annen nærliggende, eller opplever store problemer på jobb

EVENTUELLE VIKTIGE SUPPLERENDE KOMMENTARER TIL SVAR PÅ SPØRSMÅL:

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<th>Spørsmålsnummer:</th>
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TAKK FOR AT DU HAR TATT DEG TID TIL Å SVARE PÅ SPØRSMÅLENE!
Case Record FORM 1.2

31. If you are in paid employment – how large a percentage of fulltime employment did you have during the last three months before you became pregnant? What percentage do you have now? (Applies regardless of any sick leave)
Before pregnancy: □□□ %  Now: □□□ %

32. If you are in paid employment – are you currently absent from your normal job?
□ Yes  □ No  □ Partly

33. (If your answer to question 32 was “Yes” or “Partly”) What is the reason for your absence?
□ Sick leave  □ Leave  □ Sick child  □ Other

34. If you are in paid employment – have you been on sick leave for more than two weeks during this pregnancy?
Full sick leave:  Partial sick leave:
If yes, state the approx. number of weeks: □□  If yes, state the approx. number of weeks: □□

36. Think back to when you were 10 years old. What occupation did your mother/father have?
MOTHER……………  FATHER…………..

37. Think back to when you were 10 years old. How many rooms did your flat/dwelling have?
(Don’t count kitchen and bathroom). State number of rooms: □□
How many people lived in the flat/dwelling? State number of people: □□
Did your mother/father/guardian own a car? □ Yes  □ No

38. How old was your mother when you were born? □□ years of age

39. How many brothers and sisters (siblings) do you have? □□ (With the same mother)

40. Which number were you among your siblings? □□ (With the same mother)
Any half-siblings? State number, if any □□

41. How long have you lived in: (State the number of years)
The city district you currently live in: □□  Oslo: □□

42. Where did you live for most of the time before you turned 16 years of age?
□ In the same city district as now □ In another city district/area of Oslo □ In another county in Norway
□ Outside Norway
State any previous city districts:……………….
If outside Norway: □ In own country of origin □ Other

43. Who do you share your household with?
□ Spouse/cohabitant □ Parents □ Parents-in-law □ Child/children □ No one
□ Other(s), describe:………………

44. How many persons are there in your household? Count yourself as well
Number of persons 18 or older: □□
Number of persons 12-17 years of age: □□
Number of persons 6-11 years of age: □□
Number of persons under 6 years of age: □□

45. How many rooms are there (don’t count kitchen and bathroom) in the flat/dwelling where you live? State number of rooms: □□

Type of dwelling:
□ Flat in a block of flats/house with several housing units, e.g. quadruplex (four units)
□ Terrace/row house
□ Detached house □ Other

Do you own or rent your dwelling? □ Own □ Rent

46. If you are a first generation immigrant: How long have you lived in Norway?
State number of years: □□

47. Are you the descendant of immigrant parents/parents who were not born in Norway?
□ Yes □ No

If yes:
□ Born in Norway, but both parents born abroad
□ Born abroad with one parent born in Norway
□ Born in Norway with one parent born abroad
□ Born abroad of foreign-national parents

If you were born in Norway, with both parents born abroad, state the country of origin of your parents:
Country of origin for: your mother:……………… your father:………………

48. On what grounds did you come to Norway?
□ Work
□ Married a Norwegian
□ Family reunification
□ Refugee
☐ Residence on humanitarian grounds
☐ Other

49. **How often in the course of the last year have you:**
Read a newspaper in your own language/parents’ native language: ☐ Daily ☐ Weekly ☐ Less than weekly ☐ Never
Been visited by at least one Norwegian:
Read a Norwegian newspaper/watched Norwegian TV:
Received help/support from at least one Norwegian:
Participated in a meeting arranged by your own/parents’ countrymen:

50. **Have you here in Norway experienced being denied a chance to rent or buy a dwelling because of your immigrant background?**
☐ Yes, definitely ☐ Yes, I suspect so ☐ No ☐ Don’t know

51. **During the last five years in Norway have you experienced being denied a job you applied for due to your immigrant background?**
☐ Yes, definitely ☐ Yes, I suspect so ☐ No ☐ Don’t know

52. **What was your state of health the last three months before your pregnancy?**
☐ Poor ☐ Not too good ☐ Good ☐ Very good

53. **Was this pregnancy planned?**
☐ Yes ☐ No ☐ Partially Any comments:……………….

54. **If planned, how long have you been trying to get pregnant?** State number of months: ☐☐

55. **Have you had any pain in any of the following parts of your body during your pregnancy?**

   - In the lower back not radiating to the leg(s) ☐ No pain ☐ Some pain ☐ Much pain
   - In the lower back with it radiating to the leg(s) ☐ ☐ ☐
   - In the front of the pelvic bone, over the pubic bone (symphysis) ☐ ☐ ☐
   - Back, over one pelvic joint ☐ ☐ ☐
   - Back, over both pelvic joints ☐ ☐ ☐
   - Front and back of one side of the pelvic bone ☐ ☐ ☐
   - Front and back of both sides of the pelvic bone ☐ ☐ ☐
56. Think back over the last 14 days. Have you taken cod-liver oil/cod-liver oil capsules/pills (tran) and/or other dietary supplements during this time? If yes, state the number of capsules/pills/spoons per day and the correct frequency.

Cod-liver oil/Cod-liver oil capsules: □ Never □ <Once a week □ 1-2 times a week □ 3-4 times a week □ 5-6 times a week □ Every day
Fish oil capsules:
Seal oil capsules:
Folate (vitamin B):
Iron supplement:
Multi-vitamins with minerals (e.g. Vitamineral, Kostpluss, Solaray Spektro etc.):
Multi-vitamins without minerals: (e.g. Sanasol, BioVit, Vitaplex etc.)
Other dietary supplement:

State the name of the dietary supplement:…………….
State the name of any iron supplements:………………

57. Have you taken medication regularly, including birth-control, the last three months before your pregnancy?
State the name of the medication……………… – and the illness/disorder, if any……………………

☐ The pill ☐ Mini-pill ☐ IUD/coil Brand/name:……………..

58. Have you taken medication regularly during this pregnancy?
State the name of the medication…………….. – and the illness/disorder, if any……………………

59. Have you experienced any of the following events or problems in your life during the last six months?
You have been stricken with a serious illness, been injured or assaulted □ Yes □ No

One of your closest family members (mother or father, spouse/cohabitant, children or brothers/sisters) has been seriously ill, injured or the victim of an assault □ Yes □ No

One of your closest family members (mother or father, spouse/cohabitant, children or brothers/sisters) has died □ Yes □ No

You have separated/divorced, or have broken off a long-term relationship □ Yes □ No

You have had problems/major concerns about your children (upbringing, school, discipline) □ Yes □ No

You have become unemployed or been searching in vain for a job for more than one month □ Yes □ No
You have experienced other difficult circumstances, e.g. a serious problem with a close friend, neighbour, relative or partner, serious financial concerns, something you valued dearly has been lost or stolen, death of someone close to you, or have major problems at work

☐ Yes  ☐ No

ANY IMPORTANT SUPPLEMENTAL COMMENTS ON YOUR ANSWERS TO THE QUESTIONS:

Question number: □□ Comment……………………

You can also add more detailed comments here: .................................

THANKS FOR TAKING THE TIME TO ANSWER THESE QUESTIONS!
1. Hvilken sivilstand har du nå?
   - Gift
   - Partnerekspres
   - Enslig
   - Skilt/separert
   - Enke
   - Annet

2. Termin basert på ultralyd:
   - Dato: __________
   - Sikker
   - Usikker

3. Hvis i lønnet arbeid - er du fraværende fra ditt vanlige arbeid nå?
   - Ja
   - Nei
   - Delvis

4. Hvis svart ja eller delvis på spørsmål 3: Hva er årsaken til fraværet? Sett evt. flere kryss:
   - Sykemelding
   - Permisjon
   - Sykt barn
   - Annet

5. Hvis i lønnet arbeid - har du vært sykemeldt i tilsammen mer enn 2 uker i løpet av dette svangerskapet? Se evt. prosedyredebok 2.4.2
   - Helt sykemeldt:
   - Delvis sykemeldt:
   - Hvis ja, angi ca antall uker: __________

6. Hvordan er helsen din nå?
   - Dårlig
   - Ikke helt god
   - God
   - Svært god

7. Har du i de siste 3 måneder hatt smerter i noen av de følgende kroppsdeler?
   - Intervjuer ber kvinnen peke på aktuelt sted på egen kropp. Sett kryss for aktuell lokalisasjon.
   - Du kan sette flere kryss. Se evt. prosedyredebok 2.4.2
     - I korsryggen uten utstråling til bein(a)
       - Nei
       - En del plaget
       - Sterkt plaget
     - I korsryggen med utstråling til bein(a)
       - Nei
       - En del plaget
       - Sterkt plaget
8. Har du fått noen av disse sykdommene siden du ble med i prosjektet? *Bruk evt. kommentarfelt siste side. Se evt prosedyrebok 2.4.2

- Diabetes type 1
- Diabetes type 2
- Astma
- Allergi
- Gjentatte urinveisinfeksjoner
- Stoffskiftesykdom *
- Kronisk nyresykdom
- Leddgipt/Bechterew
- Hjertesykdom *
- Epilepsi
- Sykdom i mage/tarm

9. Har en eller flere av dine førstegradsslektninger (mor, far, søsken, barn) diabetes? Sett evt. flere kryss

- Mor
- Far
- Egne søsken
- Egne barn

10. Kjenner du til om en eller flere av dine førstegradsslektninger (mor, far, søsken, barn) har fått hjerte- og karsykdom (hjerteinfarkt, hjerneslag/blyndning) før fylte 55 års alder for menn og 65 års alder for kvinner? Sett evt. flere kryss

- Mor
- Far
- Egne søsken
- Egne barn

Spiseproblemer

11. Hvilken av følgende påstander passer best på deg?

- Vekt eller kroppsform påvirker ikke i det hele tatt hva jeg synes om meg selv
- Vekt eller kroppsform betyr noe for hva jeg synes om meg selv
- Vekt eller kroppsform betyr en del for hva jeg synes om meg selv
- Vekt eller kroppsform betyr mye for hva jeg synes om meg selv
- Vekt eller kroppsform betyr alt for hva jeg synes om meg selv
12. Har du noen gang brukt noen av følgende metoder for å kontrollere vekten?

- Fremkalle brekninger for å kaste opp  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

- Ta avføringsmidler  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

- Trene mer enn to timer per dag  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

- Faste eller ikke spise i 24 timer eller mer  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

Hvis aldri - gå til sp. 14

13. I dag, bruker du noen av følgende metoder for å kontrollere vekten?

- Fremkalle brekninger for å kaste opp  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

- Ta avføringsmidler  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

- Trene mer enn to timer per dag  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

- Faste eller ikke spise i 24 timer eller mer  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

14. Har du noen gang hatt perioder med overspising, dvs. anfall der du har spist store mengder mat i løpet av en kort tid?  
Hvis nei - gå til sp. 25  
Ja  
Nei

15. Hvis ja, følte du da at du ikke kunne kontrollere spisingen?

- Ikke i det hele tatt  
- Litt  
- Noe  
- Mye  
- Veldig mye

16. Når du hadde flest episoder med overspising, hvor mange ganger per måned skjedde dette?

17. Hvor lenge varte perioden med overspising

- Mindre enn en måned  
- 1-2 måneder  
- 3-5 mnd  
- 6-12 mnd  
- Lengre enn et år

18. Førte episodene med overspising til at du ble opprørt eller ulykkelig?

- Ikke i det hele tatt  
- Litt  
- Noe  
- Mye  
- Veldig mye


- Fremkalle brekninger for å kaste opp  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

- Ta avføringsmidler  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

- Trene mer enn to timer per dag  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

- Faste eller ikke spise i 24 timer eller mer  
  - Aldri  
  - En eller to ganger  
  - Ukentlig  
  - Daglig

20. I dag, hender det du har perioder med overspising, dvs. anfall der du har spist store mengder mat i løpet av kort tid?  
Hvis nei - gå til sp. 25  
Ja  
Nei

21. Hvis ja, føler du da at du ikke kan kontrollere spisingen?

- Ikke i det hele tatt  
- Litt  
- Noe  
- Mye  
- Veldig mye

22. Hvor mange ganger per måned skjer dette?
23. Hvor lenge har perioden med overspising vart?
- Mindre enn en måned
- 1-2 mnd
- 3-5 mnd
- 6-12 mnd
- Lengre enn et år

24. Fører episodene med overspising til at du blir opprørt eller ulykkelig?
- Ikke i det hele tatt
- Litt
- Noe
- Mye
- Veldig mye

25. Spiser du mer når du er engstelig, stresset eller opprørt?
- Alltid
- Ofte
- Noen ganger
- Nei, jeg spiser heller mindre

### Svangerskapsdepresjon

26. Har du siste 7 dager kunnet lie og se det komiske i en situasjon?
- Like mye som vanlig
- Ikke riktig så mye som jeg pleier
- Klart mindre enn jeg pleier
- Ikke i det hele tatt

27. Har du siste 7 dager gledet deg til ting som skulle skje?
- Like mye som vanlig
- Ikke riktig så mye som jeg pleier
- Klart mindre enn jeg pleier
- Ikke i det hele tatt

28. Har du siste 7 dager bebreidet deg selv uten grunn når noe gikk galt?
- Ja, nesten hele tiden
- Ja, av og til
- Ikke særlig ofte
- Nei, aldri

29. Har du siste 7 dager vært nervøs eller bekymret uten grunn?
- Nei, slett ikke
- Nesten aldri
- Ja, iblant
- Ja, veldig ofte

30. Har du siste 7 dager vært redd eller fått panikk uten grunn?
- Ja, svært ofte
- Ja, noen ganger
- Sjelden
- Nei, aldri

31. Har du siste 7 dager følt at det har blitt for mye for deg?
- Ja, jeg har stort sett ikke fungert i det hele tatt
- Ja, iblant har jeg ikke klart å fungere som jeg pleier
- Nei, for det meste har jeg klart meg bra
- Nei, jeg har klart meg like bra som vanlig

32. Har du siste 7 dager vært så ulykkelig at du har hatt vanskeligheter med å sove?
- Nei, ikke i det hele tatt
- Ikke særlig ofte
- Ja, iblant
- Ja, for det meste

33. Har du siste 7 dager følt deg nedfor eller ulykkelig?
- Ja, det meste av tiden
- Ja, ganske ofte
- Ikke særlig ofte
- Nei, ikke i det hele tatt

34. Har du siste 7 dager vært så ulykkelig at du har grått?
- Ja, nesten hele tiden
- Ja, veldig ofte
- Ja, det har skjedd iblant
- Nei, aldri

35. Har tanken på å skade deg selv streifet deg, de siste 7 dagene?
- Ja, nokså ofte
- Ja, av og til
- Ja, såvidt
- Aldri
Unikt pas. løopenummer: 

36. Hvor ofte lekker du urin? Kryss av i kun én boks
- Aldri
- Omtrent en gang i uken eller sjeldnere
- 2-3 ganger i uken
- Ca. en gang per dag
- Flere ganger per dag
- Hele tiden

37. Vi vil gjerne vite hvor mye urin du lekker. Hvor mye urin lekker du vanligvis (enten du bruker beskyttelse eller ikke)? Kryss av i kun én boks
- Ikke noe
- En liten mengde
- En moderat mengde
- En stor mengde

38. Hvor mye påvirker urinlekkasje ditt hverdagsliv? Her bruker vi en skala fra 0-10. Kryss av i kun én boks
- Ikke i det hele tatt
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

39. Nå lekker du urin? Kryss evt. av i flere bokser
- Aldri, jeg lekker ikke urin
- Lekker før jeg når toalettet
- Lekker når jeg høster eller nyser
- Lekker når jeg sover
- Lekker når jeg er fysisk aktiv/trimmer
- Lekker når jeg er ferdig med å late vannet og har tatt på meg klærne
- Lekker uten noen opplagt grunn
- Lekker hele tiden

40. Røyker du/snuser du nå?
- Røyk: Aldri
- Røyk: Ja, av og til
- Røyk: Ja, daglig
- Snus: Aldri
- Snus: Ja, av og til
- Snus: Ja, daglig

41. Ditt alkoholforbruk nå:
- Aldri
- Av og til
- Ja, daglig
- Antall alkoholenheter vanligvis:
- Antall alkoholenheter - 1 enhet er: 1 glass vin, 0,33 liter øl, 1 likørglass

42. Har du opplevd noen av de følgende livshendelser eller problemer siden du ble med i prosjektet?
- Du har selv vært utsatt for alvorlig sykdom, skade eller overfall: Ja / Nei
- En i din nærmeste familie (mor eller far, ektfelle/samboer, barn eller søsken) har vært alvorlig syk, utsatt for skade eller overfall: Ja / Nei
- En i din nærmeste familie (mor eller far, ektfelle/samboer, barn eller søsken) er avgått ved døden: Ja / Nei
- Du er separat/skilt, eller har brutt et langvarig forhold: Ja / Nei
- Du har hatt problemer/store bekymringer med barna dine (oppdragelse, skole, disiplin): Ja / Nei
- Du har blitt arbeidsledig, eller søkt forgjeves etter jobb i mer enn 1 måned: Ja / Nei
- Du har opplevd andre belastende forhold, som et alvorlig problem med en nær venn, nab, slektning eller partner, alvorlige økonomiske bekymringer, noe du satte stor pris på ble mistet eller stjålet, detsfall hos annen nærmstående, eller opplever store problemer på jobb: Ja / Nei
43. Tenk tilbake på de siste 14 dager. Har du tatt/brukt tran/trankapsler og/eller andre kosttilskudd i løpet av disse dagene? Hvis ja, angi antall kapsler/tabletter/skjærer per dag på rett frekvens

<table>
<thead>
<tr>
<th></th>
<th>Aldri</th>
<th>&lt;1g/uke</th>
<th>1-2g/uke</th>
<th>3-4g/uke</th>
<th>5-6x/uke</th>
<th>Daglig</th>
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<tbody>
<tr>
<td>Tran/Trankapsler</td>
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<td>Fiskeoljekapsler</td>
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<td>Jerntilskudd</td>
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<td>Multivitaminer uten mineraler (som Sanasol, BioVit, Vitaplex o.a.)</td>
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<td>Multivitaminer m/mineraler (som Vitamineral, Kostpluss o.a.)</td>
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<tr>
<td>Andre kosttilskudd</td>
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Angi navn på kosttilskudd 1: ____________________________
Angi navn på kosttilskudd 2: ____________________________
Angi navn på kosttilskudd 3: ____________________________
Angi navn på kosttilskudd 4: ____________________________
Angi navn på jern tilskudd: ____________________________

44. Har du brukt faste medisiner de siste 3 måneder? Angi legemiddel navn - og evt. sykdom/plage

<table>
<thead>
<tr>
<th>Angi legemiddel navn</th>
<th>Evt sykdom/plage</th>
<th>Angi legemiddel navn</th>
<th>Evt sykdom/plage</th>
<th>Angi legemiddel navn</th>
<th>Evt sykdom/plage</th>
<th>Angi legemiddel navn</th>
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Øvrige kommentarer, relater til spørsmålsnummer:

TAKK FOR AT DU HAR TATT DEG TID TIL Å SVARE PÅ SPØRSMÅLENE!
Kode intervjuer
Intervjuers initialer
Undersøkelsesdato
Antall uker etter fødsel
Kvinnens fødselsdato
Bosteds-postnummer
Undersøkelsesbydel

Forklaring til utfyllingen:

Eksempel på utfylling:

ja  nei  2256 gram

Tekst i kursiv under spørsmålet, før svarkategoriene, er informasjon til intervjueren og skal ikke leses opp for kvinnen.

1. Hvilken sivilstand har du nå?

Gift  Partnerskap  Samboer  Enslig  Skilt/separert  Enke  Annet

2. Hvordan var din opplevelse av svangerskapet i det store og det hele?

Hvordan følte du deg ivaretatt under svangerskapet?

Av dine nærmeste
Av fastlegen
Av jordmor på helsestasjonen
Av jordmor på sykehuset*
Av lege på sykehuset*

* Hvis aktuelt

3. Hvordan var din opplevelse av fødselen i det store og det hele?

4. Hvor redd var du under fødselen?

5. Følte du at dine nærmeste ga hjelp og viste omsorg i dagene rundt fødsel?

Ja, i stor grad  ja, i noen grad  i liten grad
Hvor ivaretatt følte du deg under fødselen?

<table>
<thead>
<tr>
<th>På fødeavdelingen</th>
<th>☐ Svært godt</th>
<th>☐ Godt</th>
<th>☐ Dårlig</th>
<th>☐ Svært dårlig</th>
</tr>
</thead>
<tbody>
<tr>
<td>På barselavdelingen</td>
<td>☐ Svært godt</td>
<td>☐ Godt</td>
<td>☐ Dårlig</td>
<td>☐ Svært dårlig</td>
</tr>
</tbody>
</table>

6. Hvordan er helsen din nå?

| ☐ Dårlig | ☐ Ikke helt god | ☐ God | ☐ Svært god |

7. Har du den siste måneden hatt smerter i noen av de følgende kroppsdeler? Intervjuer ber kvinnen peke på aktuelt sted på egen kropp. Sett kryss for aktuell lokalisasjon. Du kan sette flere kryss. se evt. prosedyrebok 2.4.2

<table>
<thead>
<tr>
<th>I korsryggen uten utstråling til bein(a)</th>
<th>☐ Nei</th>
<th>☐ En del plaget</th>
<th>☐ Sterkt plaget</th>
</tr>
</thead>
<tbody>
<tr>
<td>I korsryggen med utstråling til bein(a)</td>
<td>☐ Nei</td>
<td>☐ En del plaget</td>
<td>☐ Sterkt plaget</td>
</tr>
<tr>
<td>Foran i bekkenet, over kjønnbeinet(symfysen)</td>
<td>☐ Nei</td>
<td>☐ En del plaget</td>
<td>☐ Sterkt plaget</td>
</tr>
<tr>
<td>Bak, over det ene bekenledet</td>
<td>☐ Nei</td>
<td>☐ En del plaget</td>
<td>☐ Sterkt plaget</td>
</tr>
<tr>
<td>Bak, over begge bekenledene</td>
<td>☐ Nei</td>
<td>☐ En del plaget</td>
<td>☐ Sterkt plaget</td>
</tr>
<tr>
<td>Foran og bak på ene siden av bekkenet</td>
<td>☐ Nei</td>
<td>☐ En del plaget</td>
<td>☐ Sterkt plaget</td>
</tr>
<tr>
<td>Foran og bak på begge sider av bekkenet</td>
<td>☐ Nei</td>
<td>☐ En del plaget</td>
<td>☐ Sterkt plaget</td>
</tr>
</tbody>
</table>

8. Har du fått noen av disse sykdommene de siste 6 månedene? *Bruk evt. kommentarfelt siste side. Se evt prosedyrebok 2.4.2

<table>
<thead>
<tr>
<th>Diabetes type 1</th>
<th>☐ Ja</th>
<th>☐ Nei</th>
<th>Kronisk nyresykdom</th>
<th>☐ Ja</th>
<th>☐ Nei</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes type 2</td>
<td>☐ Ja</td>
<td>☐ Nei</td>
<td>Vedvarende høyt blodtrykk</td>
<td>☐ Ja</td>
<td>☐ Nei</td>
</tr>
<tr>
<td>Stoffskiftesykdom *</td>
<td>☐ Ja</td>
<td>☐ Nei</td>
<td>Leddgipt/Bechterew</td>
<td>☐ Ja</td>
<td>☐ Nei</td>
</tr>
<tr>
<td>Astma</td>
<td>☐ Ja</td>
<td>☐ Nei</td>
<td>Hjertesykdom *</td>
<td>☐ Ja</td>
<td>☐ Nei</td>
</tr>
<tr>
<td>Allergi</td>
<td>☐ Ja</td>
<td>☐ Nei</td>
<td>Epilepsi</td>
<td>☐ Ja</td>
<td>☐ Nei</td>
</tr>
<tr>
<td>Gjentatte urinveisinfeksjoner</td>
<td>☐ Ja</td>
<td>☐ Nei</td>
<td>Sykdom i mage/tarm</td>
<td>☐ Ja</td>
<td>☐ Nei</td>
</tr>
</tbody>
</table>

Har det noen gang i livet ditt vært sammenhengende perioder på to uker eller mer, da du:

| ☐ Følte deg deprimert, trist eller nedfor |
| ☐ Hadde problemer med matlysten eller spiste for mye |
| ☐ Var plaget av kraftløshet eller mangel på overskudd |
| ☐ Virkelig bebreidet deg selv og følte deg verdiløs |
| ☐ Hadde problemer med å konsentrere deg eller vanskelig for å ta beslutninger |
| ☐ Hadde minst tre av de problemene som er nevnt over samtidig |


| ☐ Barnet var friskt |
| ☐ Barnet ble innlagt på barneavd, men var ikke alvorlig syk |
| ☐ Barnet ble innlagt på barneavd, og var alvorlig syk |

Årsak til innleggelse:
**Hvordan er barnets helse nå? (sett ett eller flere kryss)**

- [ ] Barnet er friskt
- [ ] Barnet er sykt
- [ ] Barnet døde

**Type sykdom/problem:**

10.1. Får barnet morsmelk nå, evt. noe i tillegg til morsmelk?
Tenk på de siste 14 dager. Med fast føde menes alle andre matvarer enn juice, saft eller andre sukkerholdige drikker, vann og kosttilskudd. Sett ett kryss.

- [ ] Ja, bare morsmelk (og evt. tran eller annet kosttilskudd) (gå til spm. 10.6)
- [ ] Ja, morsmelk og juice, saft eller andre sukkerholdige drikker
- [ ] Ja, morsmelk og fast føde og evt. juice, saft eller andre sukkerholdige drikker
- [ ] Ja, morsmelk og morsmelkerstatning/annen melk
- [ ] Ja, morsmelk og morsmelkerstatning/annen melk og juice, saft eller andre sukkerholdige drikker
- [ ] Ja, morsmelk og morsmelkerstatning/annen melk og fast føde og evt. juice, saft eller andre sukkerholdige drikker
- [ ] Nei, men barnet har fått morsmelk tidligere
- [ ] Nei, barnet har aldri fått morsmelk

**Hvis barnet har fått morsmelk tidligere, men ikke får morsmelk nå:**

10.2. Hvor gammelt var barnet da det sluttet å få morsmelk? Sett ett kryss

<table>
<thead>
<tr>
<th>Uker</th>
<th>Måneder</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td></td>
<td>2 2.5 3</td>
</tr>
</tbody>
</table>

10.3. Hvor gammelt var barnet da det begynte med morsmelkerstatning/annen melk i tillegg til eller i stedet for morsmelk? Her regnes både det som drikkes og det som du selv tilsetter i grøt eller annen mat. Sett ett kryss

<table>
<thead>
<tr>
<th>Uker</th>
<th>Måneder</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td></td>
<td>2 2.5 3</td>
</tr>
</tbody>
</table>

10.4. Dersom barnet får juice, saft eller andre sukkerholdige drikker nå, hvor gammelt var barnet da det begynte å få dette? Sett ett kryss

<table>
<thead>
<tr>
<th>Uker</th>
<th>Måneder</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td></td>
<td>2 2.5 3</td>
</tr>
</tbody>
</table>

10.5. Dersom barnet får fast føde nå, hvor gammelt var barnet da det begynte å få dette? Sett ett kryss

<table>
<thead>
<tr>
<th>Uker</th>
<th>Måneder</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td></td>
<td>2 2.5 3</td>
</tr>
</tbody>
</table>

10.6. Målinger av barnet ved ca 3 måneders alder:

- [ ] Alder (hele uker):
- [ ] Vekt i gram:
- [ ] Lengde (cm):
- [ ] Ho (cm):

- [ ] Kjønn: [ ] Jente [ ] Gutt

Tvilling 2:

- [ ] Alder (hele uker):
- [ ] Vekt i gram:
- [ ] Lengde (cm):
- [ ] Ho (cm):

- [ ] Kjønn: [ ] Jente [ ] Gutt
11. Hvilken av følgende påstander passer best på deg?

<table>
<thead>
<tr>
<th>Alternativ</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vekt eller kroppsform påvirker ikke i det hele tatt hva jeg synes om meg selv</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Vekt eller kroppsform betyr noe for hva jeg synes om meg selv</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Vekt eller kroppsform betyr en del for hva jeg synes om meg selv</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Vekt eller kroppsform betyr mye for hva jeg synes om meg selv</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Vekt eller kroppsform betyr alt for hva jeg synes om meg selv</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

13. I dag, bruker du noen av følgende metoder for å kontrollere vekten?

<table>
<thead>
<tr>
<th>Metode</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fremkalle brekninger for å kaste opp</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Ta avføringsmidler</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Trene mer enn to timer per dag</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Faste eller ikke spise i 24 timer eller mer</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

20. I dag, hender det du har perioder med overspising, dvs anfall der du har spist store mengder mat i løpet av kort tid? Hvis nei - gå til sp. 25

<table>
<thead>
<tr>
<th>Alternativ</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nei</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Ja</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

22. Hvor mange ganger per måned skjer dette?

<table>
<thead>
<tr>
<th>Alternativ</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>aldri</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

23. Hvor lenge har perioden med overspising vart?

<table>
<thead>
<tr>
<th>Alternativ</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

24. Fører episodene med overspising til at du blir opprørt eller ulykkelig?

<table>
<thead>
<tr>
<th>Alternativ</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

25. Spiser du mer når du er engstelig, stresset eller opprørt?

<table>
<thead>
<tr>
<th>Alternativ</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

26. Har du siste 7 dager kunnet le og se det komiske i en situasjon?

<table>
<thead>
<tr>
<th>Alternativ</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

27. Har du siste 7 dager gledet deg til ting som skulle skje?

<table>
<thead>
<tr>
<th>Alternativ</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

28. Har du siste 7 dager bebreidet deg selv uten grunn når noe gikk galt?

<table>
<thead>
<tr>
<th>Alternativ</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

29. Har du siste 7 dager vært nervøs eller bekymret uten grunn?

<table>
<thead>
<tr>
<th>Alternativ</th>
<th>Aldri</th>
<th>En eller to ganger</th>
<th>Ukentlig</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
30. Har du siste 7 dager vært redd eller fått panikk uten grunn?
- Ja, svært ofte
- Ja, noen ganger
- Sjelden
- Nei, aldri

31. Har du siste 7 dager følt at det har blitt for mye for deg?
- Ja, jeg har stort sett ikke fungert i det hele tatt
- Ja, iblant har jeg ikke klart å fungere som jeg pleier
- Nei, for det meste har jeg klart meg bra
- Nei, jeg har klart meg like bra som vanlig

32. Har du siste 7 dager vært så ulykkelig at du har hatt vanskeligheter med å sove?
- Nei, ikke i det hele tatt
- Ikke særlig ofte
- Ja, iblant
- Ja, for det meste

33. Har du siste 7 dager følt deg nedfor eller ulykkelig?
- Ja, det meste av tiden
- Ja, ganske ofte
- Ikke særlig ofte
- Nei, ikke i det hele tatt

34. Har du siste 7 dager vært så ulykkelig at du har grått?
- Ja, nesten hele tiden
- Ja, veldig ofte
- Ja, det har skjedd iblant
- Nei, aldri

35. Har tanken på å skade deg selv streifet deg, de siste 7 dagene?
- Ja, nokså ofte
- Ja, av og til
- Ja, såvidt
- Aldri

36. Hvor ofte lekker du urin? Kryss av i kun en boks
- Aldri
- Omtrent en gang i uken eller sjeldnere
- 2-3 ganger i uken
- Ca. en gang per dag
- Flere ganger per dag
- Hele tiden

- Ikke noe
- En liten mengde
- En moderat mengde
- En stor mengde

38. Hvor mye påvirker urinlekkasje ditt hverdagsliv? Her bruker vi en skala fra 0-10.
- Ikke i det hele tatt
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

39. Når lekker du urin? Kryss evt. av i flere bokser
- Aldri, jeg lekker ikke urin
- Lekker før jeg når toalettet
- Lekker når jeg hoster eller nyser
- Lekker når jeg sover
- Lekker når jeg er fysisk aktiv/trimmer
- Lekker når jeg er ferdig med å late vannet og har tatt på meg klærne
- Lekker uten noen opplagt grunn
- Lekker hele tiden
40. Røyker du/snuser du nå?

<table>
<thead>
<tr>
<th>Røyk</th>
<th>Antall cigaretter/dag</th>
<th>Snus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
<td>ja, av og til</td>
<td>ja, daglig</td>
</tr>
<tr>
<td>Av og til</td>
<td>ja, av og til</td>
<td>ja, daglig</td>
</tr>
<tr>
<td>Ja, daglig</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aldri</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

41. Ditt alkoholforbruk nå?

<table>
<thead>
<tr>
<th>Antall alkoholenheter vanligvis:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
</tr>
<tr>
<td>Av og til</td>
</tr>
<tr>
<td>Ja, daglig</td>
</tr>
</tbody>
</table>

Antall alkoholenheter - 1 enhet er: 1 glass vin, 0,33 liter øl, 1 likørglass

42. Har du opplevd noen av de følgende livshendelser eller problemer de siste 6 måneder?

<table>
<thead>
<tr>
<th>Du har selv vært utsatt for alvorlig sykdom, skade eller overfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
</tr>
<tr>
<td>Av og til</td>
</tr>
<tr>
<td>Ja, daglig</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>En i din nærmeste familie (mor eller far, ektefelle/samboer, barn eller søskener) har vært alvorlig syk, utsatt for skade eller overfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
</tr>
<tr>
<td>Av og til</td>
</tr>
<tr>
<td>Ja, daglig</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>En i din nærmeste familie (mor eller far, ektefelle/samboer, barn eller søskener) er avgått ved døden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
</tr>
<tr>
<td>Av og til</td>
</tr>
<tr>
<td>Ja, daglig</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Du er separert/skilt, eller har brutt et langvarig forhold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
</tr>
<tr>
<td>Av og til</td>
</tr>
<tr>
<td>Ja, daglig</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Du har hatt problemer/store bekymringer med barna dine (oppdragelse, skole, disiplin)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
</tr>
<tr>
<td>Av og til</td>
</tr>
<tr>
<td>Ja, daglig</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Du har blitt arbeidsledig, eller søkt forgjeves etter jobb i mer enn 1 måned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
</tr>
<tr>
<td>Av og til</td>
</tr>
<tr>
<td>Ja, daglig</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Du har opplevd andre belastende forhold, som et alvorlig problem med en nær venn, nab, slektning eller partner, alvorlige økonomiske bekymringer, noe du satte stor pris på ble mistet eller stjålet, dødsfall hos annen nærstående, eller opplever store problemer på jobb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldri</td>
</tr>
<tr>
<td>Av og til</td>
</tr>
<tr>
<td>Ja, daglig</td>
</tr>
</tbody>
</table>

43. Tenk tilbake på de siste 14 dager. Har du tatt/trukket tran/trankapsler og/eller andre kosttilskudd i løpet av disse dagene? Hvis ja, angi antall kapsler/tabletter/skjeer per dag på rett frekvens

<table>
<thead>
<tr>
<th>Aldri</th>
<th>&lt;2g/uke</th>
<th>1-2g/uke</th>
<th>3-4g/uoke</th>
<th>5-6x/uke</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tran/Trankapsler</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiskeoljekapsler</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seloljekapsler</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Folat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jerntilskudd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multivitaminer uten mineraler (som Sanasol, Blovit, Vitaplex etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multivitaminer m/mineraler (som Vitamineral, Kostpluss etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andre kosttilskudd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Angi navn på kosttilskudd 1:

Angi navn på kosttilskudd 2:

Angi navn på kosttilskudd 3:

Angi navn på kosttilskudd 4:

Angi navn på jerntilskudd:

44. Har du brukt faste medisiner de siste 3 måneder? Angi legemiddel navn - og evt. sykdom/plage

Angi legemiddel navn

Angi legemiddel navn

Angi legemiddel navn

Angi legemiddel navn

Angi legemiddel navn

Angi legemiddel navn

Angi legemiddel navn

Angi legemiddel navn

Evt sykdom/plage

Evt sykdom/plage

Evt sykdom/plage

Evt sykdom/plage

Evt sykdom/plage

Evt sykdom/plage

Evt sykdom/plage

Evt sykdom/plage

P-piller  Minipiller  Spiral

Merke

Øvrige kommentarer, relater til spørsmålsnummer:

TAKK FOR AT DU HAR TATT DEG TID TIL Å SVARE PÅ SPØRSMÅLENE!
**STORK Groruddalen**

**Kosthold**

<table>
<thead>
<tr>
<th>Kode intervjuer</th>
<th>Intervjuers initialer</th>
<th>Undersøkelsesdato</th>
<th>Svangerskapsuke</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Uker etter fødsel</th>
<th>Kvinne's fødselsdato</th>
<th>Undersøkelsesbydel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unikt pas. løpenummer: 9980
Drikke/yoghurt

1. Tenk tilbake på de siste 14 dagene. Nå skal jeg stille deg noen spørsmål om hva du har drukket eller brukt til frokostblanding (som cornflakes, musli, etc.) disse dagene.

   Eksempel: Har du drukket coladrikker med sukker disse dagene? Hvis ja, hvor ofte har du drukket slike drikker? Hvor mye drakk du hver gang?

   Kryss av (X) for hvor ofte (frekvens) og hvor mye per gang (i liter) der det er aktuelt.

<table>
<thead>
<tr>
<th></th>
<th>Ikke drukket</th>
<th>&lt;1 g/uåke</th>
<th>1-2 g/uåke</th>
<th>3-4 g/uåke</th>
<th>5-6 g/uåke</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coladrikker med sukker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annen brus med sukker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coladrikker, kunstig søt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annen brus, kunstig søt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saft og andre drikker med sukker (inkl. nektar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saft og andre drikker, kunstig søt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruktjuice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H-melk, kefir, kulturmelk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lettmelk, Cultura, Biola, sjokomelk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ekstra lett lettmelk (grønn)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skummet melk, skummet kultur, Biola bær</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Te</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filterkaffe, pulverkaffe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaffe fra presskanne, kokekaffe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annen kaffe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annen drikke:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   Kommentarer:

   __________________________________________________________________________
   __________________________________________________________________________

2. Hvis du drikker te eller kaffe, hvor mange teskjærer sukker og/eller honning bruker du per kopp? (sett kryss)

<table>
<thead>
<tr>
<th></th>
<th>Bruker ikke sukNER/honning</th>
<th>1 ts</th>
<th>2 ts</th>
<th>3 ts</th>
<th>4 ts</th>
<th>≥5 ts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antall ts sukker/honning i te</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antall ts sukker i kaffe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   Unikt pas. løpenummer 9980
3. Tenk tilbake på de siste 14 dagene. Hvor ofte har du spist yoghurt (fra beger, til frokostblanding og/eller i matlaging)? (sett kryss)

<table>
<thead>
<tr>
<th></th>
<th>Ikke spist</th>
<th>&lt;1 g/uve</th>
<th>1-2 g/uve</th>
<th>3-4 g/uve</th>
<th>5-6 g/uve</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoghurt naturell</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gresk/tyrkisk yoghurt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yoghurt med frukt/bær</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lett yoghurt med frukt/bær</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

4. Tenk tilbake på de siste 14 dagene. Hvor ofte har du spist frukt og/eller bær? (sett kryss)

<table>
<thead>
<tr>
<th></th>
<th>Aldri el.</th>
<th>1-2 g/uve</th>
<th>3-4 g/uve</th>
<th>5-6 g/uve</th>
<th>1 g/dag</th>
<th>2 g/dag</th>
<th>≥ 3 g/dag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frisk frukt, bær fruktosalat/fruktchaart el. l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Tenk tilbake på de siste 14 dagene. Hvor ofte har du spist grønnsaker? (sett kryss)

<table>
<thead>
<tr>
<th></th>
<th>Aldri el.</th>
<th>1-2 g/uve</th>
<th>3-4 g/uve</th>
<th>5-6 g/uve</th>
<th>1 g/dag</th>
<th>2 g/dag</th>
<th>≥ 3g/dag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rå grønnsaker, blandede grønnsaker/grønnsakschaart, salater</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stekte/wokkede grønnsaker, kokte/dampede/ovnsbakte grønnsaker, grønnsaker i gryte (f.eks. curry, salen)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Tenk tilbake på de siste 14 dagene. Hvor ofte har du spist potet? (sett kryss)

<table>
<thead>
<tr>
<th></th>
<th>Aldri el.</th>
<th>1-2 g/uve</th>
<th>3-4 g/uve</th>
<th>5-6 g/uve</th>
<th>1 g/dag</th>
<th>2 g/dag</th>
<th>≥ 3g/dag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potet (kotk, bakt, stekt i ovn)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gratinerete poteter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pommes frites (frityr, gatekjøkken)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Bønner, linser, erter, kikerter og lignende

7. Tenk tilbake på de siste 14 dagene. Hvor ofte har du spist bønner, linser, erter, kikerter eller lignende? (sett kryss)

<table>
<thead>
<tr>
<th>Aldri el.</th>
<th>&lt;1 g/uke</th>
<th>1-2 g/uke</th>
<th>3-4 g/uke</th>
<th>5-6 g/uke</th>
<th>1 g/dag</th>
<th>2 g/dag</th>
<th>&gt;3 g/dag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomatbønner, andre bønner, erte-/bønnestuing, dahl, linse-/ertesuppe, chaart med kikerter, linsekaker, falafel (o.l.), hummus</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Annet</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Kjøtt (rødt og hvitt kjøtt) og farsemat

8. Tenk tilbake på de siste 14 dagene. Hvor ofte har du spist kjøtt og/eller farseprodukter (gjelder ikke pålegg)? (Sett kryss) Alternativet "annet" har falt ut, tilføy selv under de andre kategoriene hvis aktuelt.

<table>
<thead>
<tr>
<th>Ikke spist</th>
<th>&lt;1 g/uke</th>
<th>1-2 g/uke</th>
<th>3-4 g/uke</th>
<th>5-6 g/uke</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kylling, kalkun, annet magert kjøtt som renskåret oksekjøtt, svinekjøtt (stekt, kotk, grillei, i gryte etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Retter med karbonadedeg, hamburger, pølse/farsemat av kylling/kalkun, lettpølser, koteletter uten fettrand</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Kotelett med fettrand, lammekjøtt, pølser, kjøttkaker, kebab, andre retter med kjøttdeig/andre farseprodukter av kjøtt</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Pizza, &quot;fastfood&quot; (kjøpt utenfor hjemmet)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
| Fiske og fiskemat

9. Tenk tilbake på de siste 14 dagene. Hvor ofte har du spist fisk og/eller fiskeprodukter (gjelder ikke pålegg)? (Sett kryss)

<table>
<thead>
<tr>
<th>Ikke spist</th>
<th>&lt;1 g/uke</th>
<th>1-2 g/uke</th>
<th>3-4 g/uke</th>
<th>5-6 g/uke</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magre fisk (fileter, hele stykker) av torsk, sei, flyndre, kolje, tunfisk, annen magre fisk (stekt, dampet, kotk, grillei, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Fet fisk som laks, ørret, kvete/hellefisk, makrell, sild, annen fet fisk (stekt, dampet, kotk, grillei, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Fiskeprodukter (fiskekaker, fiskepudding, el.l)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Fiskepinner eller tilsvarende produkter (frityrstekt eller stekt)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Annet</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Tilberedning av mat

10. Tenk tilbake på de siste 14 dagene. Hvor ofte har du spist mat som er blitt: (sett kryss)

- Stekt i panne (m/smør, margarin, olje, o.l.) laget i wok/haandi
  - Ikke spist
  - <1 g/uks
  - 1-2 g/uks
  - 3-4 g/uks
  - 5-6 g/uks
  - Daglig

- Frityrstekt/Deep-fry
  - Ikke spist
  - <1 g/uks
  - 1-2 g/uks
  - 3-4 g/uks
  - 5-6 g/uks
  - Daglig

Type fett (smør, margariner, oljer, annet) brukt på brød el. til matlaging/tilberedning

11. Tenk tilbake på de siste 14 dagene.

- Hva slags type fett har du brukt på brød? (brødmat)
- Hva slags type fett har du brukt til steking?
- Hva slags type fett har du brukt til fritering/deep-fry?
- Hva slags type fett har du brukt til annen matlaging som baking?

Etter hvert spørsmål sett kryss for det eller de aktuelle alternativer. Spør først om fett brukt på brød, deretter til steking, fritering og annen matlaging. Bruk plansje/bilder
### Brød, kornvarer, pasta og ris

#### 12. Tenk tilbake på de siste 14 dagene. Hvor ofte har du spist følgende matvarer? (sett kryss)

<table>
<thead>
<tr>
<th>Matvarer</th>
<th>Ikke spist</th>
<th>&lt;1 g/uke</th>
<th>1-2 g/uke</th>
<th>3-4 g/uke</th>
<th>5-6 g/uke</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fint brød (loff, nan, frokostknekkebrød, el.l) og/eller halvgrovt brød</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Grovt og ekstra grovt brød/rundstykker/knekkebrød, chapati</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Frokostblandinginger/musli med ingen eller litt tilsatt sukker (havregryn, 4korn el.l)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Vanlig ris, makaroni, pasta/spagetti, coscous</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Fullkompasta eller naturris/upolert ris/fullkorn ris, hirse</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

### Pålegg

#### 13. Tenk tilbake på de siste 14 dagene. Hvor ofte har du brukt følgende pålegg? (sett kryss)

<table>
<thead>
<tr>
<th>Pålegg</th>
<th>Ikke brukt</th>
<th>&lt;1 g/uke</th>
<th>1-2 g/uke</th>
<th>3-4 g/uke</th>
<th>5-6 g/uke</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hvitost (Norvegia, Gulost, Nøkkelost, smøreost), brunost, andre fete oster</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Lettere/mager hvitost/smøreost, lettere brunost, prim, andre lettere/magre oster</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Leverpostei, salami, servelat, fårefølelse etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Leverpostei med mindre fett, leverpostei med &quot;sunt&quot; fett, kokt skinke, kalkunpålegg, lett servelat</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Fiskepålegg (makrell i tomat, annen makrell, laks, ørret, sardiner, ansjos, sild, kaviar etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Syltetøy, marmelade</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Lett syttetøy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sjokolade-, nøtepålegg, Sunda, sirup, honning, e.l.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Majonessalater (italiensk salat, rekesalat el.l)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Egg</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Annet</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
### Søte matvarer


<table>
<thead>
<tr>
<th>Matvarer</th>
<th>Ikke spist</th>
<th>&lt;1 g/uke</th>
<th>1-2 g/uke</th>
<th>3-4 g/uke</th>
<th>5-6 g/uke</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaker, formkake, muffins, smultring, wienerbrød/-stang</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Søte kjeks (flyte kjeks, sjokoladekjes, Balerina, Bixit, vaffelkjeks, Mariekjeks, Kommo, o.l)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boller, skolebrød, annen søt gjarbakst</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vafler, sveler, lapper o.l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sjokolade, smågodt/drops, snacks med sukker (gele, Turkish delight)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Utenlandsk søt snacks (mithai, jalebi, halwa, zarda, la’du, baklava o.l)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iskrem</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Desserter/pudding/riskrem</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tørket frukt</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andre søte matvarer/snacks</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Snacks

15. Tenk tilbake på de siste 14 dagene. Hvor ofte har du spist følgende matvarer? (sett kryss)

<table>
<thead>
<tr>
<th>Matvarer</th>
<th>Ikke spist</th>
<th>&lt;1 g/uke</th>
<th>1-2 g/uke</th>
<th>3-4 g/uke</th>
<th>5-6 g/uke</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt snacks (vanlig chips/potetgull med div. smaker, tortillachips), andre fete snacks, Bombay mix o.l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Lett&quot; snacks (skruer, saltstenger, popcorn)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Nøtter</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Måltidsfrekvens

16. Tenk tilbake på de siste 14 dagene. Hvor ofte pleier du å spise følgende måltider i løpet av en uke? (Sett et kryss for hvert måltid)

<table>
<thead>
<tr>
<th>Måltid</th>
<th>Aldri/ Sjelden</th>
<th>1 gang i uken</th>
<th>2 ganger i uken</th>
<th>3 ganger i uken</th>
<th>4 ganger i uken</th>
<th>5 ganger i uken</th>
<th>6 ganger i uken</th>
<th>Hver dag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frokost</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Formiddagsmat/lunsj</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middag</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kveldsmat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nattmat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Endringer i kosthold

18. Tenk tilbake på de siste 14 dagene. Har du hatt et spesielt kosthold disse dagene?

- Nei
- Ja

Hvis ja, hva har vært spesielt?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

19. Har du endret kostholdet etter du ble gravid/etter at du fødte? (stryk det som ikke passer)

- Nei
- Ja

Hvis ja, hvilke endringer har du gjort og når gjorde du disse?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Spesielle kostvaner

20. Hvordan vil du beskrive kostholdet ditt? (Sett ett kryss ved det mest aktuelle alternativet)

- I mitt kosthold inngår kjøtt og fisk
- Jeg unngår kjøtt, men spiser fisk
- Jeg unngår fisk, men spiser kjøtt
- Jeg er vegetarianer og inkluderer melkeprodukter og egg i kosten (ovolako-vegetarianer)
- Jeg er vegetarianer og inkluderer melkeprodukter, men ikke egg i kosten (lakto-vegetariner)
- Jeg er vegetarianer og utelater alle melkeprodukter og egg fra kosten (veganer)

Takk for at du har tatt deg tid til å svare på disse spørsmålene!
<table>
<thead>
<tr>
<th>Serial no.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initialer intervjuer:</td>
</tr>
<tr>
<td>U undersøkelsesdato:</td>
</tr>
<tr>
<td>Kvinns fødselsdato:</td>
</tr>
</tbody>
</table>

[engelsk – kosthold]

STORK Groruddalen

DIET
1. Think back over the last 14 days. Now I’m going to ask you some questions about what you have drunk or poured on your cereal (such as cornflakes, muesli etc.) during this time. **Example:** Have you drunk any cola with sugar during this period? If yes, how often have you drunk this? How much did you drink each time?

**Tick (X) for how often (frequency) and how much each time (in litres) where applicable.**

<table>
<thead>
<tr>
<th>Have not drunk</th>
<th>&lt; Once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Daily</th>
<th>Amount per time</th>
<th>1/5 l</th>
<th>1/3 l</th>
<th>½ l</th>
<th>1 l+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cola with sugar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other soda pop/lizzy drink with sugar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar-free cola</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other sugar-free soda pop/lizzy drink</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squash/juice and other drinks with sugar (including nectar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar-free squash/juice and other drinks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruit juice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whole milk, kefir, sour milk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2% milk, Cultura, Biola, chocolate milk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>0.7% milk (green)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skimmed milk, skimmed sour milk, Biola berry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coffeemaker coffee, instant coffee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coffee press, percolated coffee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other coffee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other drinks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. If you drink tea or coffee, how many teaspoons of sugar and/or honey do you use per cup?

<table>
<thead>
<tr>
<th></th>
<th>Don’t use sugar/honey</th>
<th>1 tsp</th>
<th>2 tsp</th>
<th>3 tsp</th>
<th>4 tsp</th>
<th>≥ 5 tsp</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many tsp sugar/-honey in tea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How many tsp sugar/-honey in coffee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Think back over the last 14 days. How often have you eaten/used yoghurt (from cups, with cereal and/or in cooking)?

<table>
<thead>
<tr>
<th></th>
<th>Have not eaten</th>
<th>&lt; Once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural yoghurt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greek/Turkish yoghurt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yoghurt with fruit/berries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light yoghurt with fruit/berries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Think back over the last 14 days. How often have you eaten fruit and/or berries?

<table>
<thead>
<tr>
<th></th>
<th>Never or &lt; once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Once a day</th>
<th>2 t/day</th>
<th>≥ 3 t/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh fruit, berries, fruit-salad/fruit chart etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Think back over the last 14 days. How often have you eaten vegetables?

<table>
<thead>
<tr>
<th></th>
<th>Never or &lt; once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Once a day</th>
<th>2 t/day</th>
<th>≥ 3 t/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw vegetables, mixed vegetables/vegetable chart, salads</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fried/wok vegetables, boiled/steamed/baked vegetables, vegetables in stews (e.g. curry)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. **Think back over the last 14 days. How often have you eaten potatoes?**

<table>
<thead>
<tr>
<th></th>
<th>Never or &lt; once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Once a day</th>
<th>2 t/day</th>
<th>≥ 3 t/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato (boiled, baked, roasted in the oven)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gratinated potatoes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>French fries/chips (deep-fried, fast-food)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. **Think back over the last 14 days. How often have you eaten beans, lentils, peas, chickpeas etc?**

<table>
<thead>
<tr>
<th></th>
<th>Never or &lt; once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Once a day</th>
<th>2 t/day</th>
<th>≥ 3 t/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baked beans, other beans, creamed peas/beans, dahl, lentil/pea soup, chickpeas, lentil cakes, falafel (etc.), hummus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. **Think back over the last 14 days. How often have you eaten meat and/or sausage products (does not refer to sandwich meats)?**

<table>
<thead>
<tr>
<th></th>
<th>Have not eaten</th>
<th>&lt; Once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken, turkey, other lean meat such as trimmed roast beef, pork (fried, boiled, grilled, in stews etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dishes with lean minced beef, hamburger, hot dog/sausage meat of chicken/turkey, light hot dogs, chops trimmed of fat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chops not trimmed of fat, lamb, hot dogs, fricadelles, kebab, other dishes with minced meat/other forcemeat products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pizza, fast-food (purchased outside the home)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. **Think back over the last 14 days. How often have you eaten fish and/or fish products (does not refer to sandwich spread etc.)?**

<table>
<thead>
<tr>
<th></th>
<th>Have not eaten</th>
<th>&lt; Once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lean fish (fillets, whole fish) of cod, saithe/pollock, flounder, haddock, tuna, other lean fish (fried, steamed, boiled, grilled etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fat fish such as salmon, trout, halibut, mackerel, herring, other fat fish (fried, steamed, boiled, grilled etc.)

Fish products (fish cakes, fish pudding etc.)

Fish fingers or similar products (deep-fried or fried)

Other __________________________________

<table>
<thead>
<tr>
<th>Have not eaten</th>
<th>Once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pan-fried (with butter, margarine, oil etc.), fried in a wok/haandi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep-fried</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. **Think back over the last 14 days. How often have you eaten food that has been:**

11. **Think back over the last 14 days.**
   - What type of fat have you used on bread?
   - What type of fat have you used for frying?
   - What type of fat have you used for deep-frying?
   - What type of fat have you used for other types of cooking, for example baking?

   **After each question tick the box for one or more correct alternatives. First ask about fat used on bread, then for frying, deep-frying and other cooking. Use chart/pictures**

<table>
<thead>
<tr>
<th>On bread</th>
<th>For frying</th>
<th>For deep-frying</th>
<th>For other types of cooking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used fat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter (dairy butter)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melange (margarine), Bremyk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brelett</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soft margarine (Soft Flora, Soft Ekstra, Soft Oliven, Vita, Soya etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light vegetable margarine (Soft light, Vita Lett etc.), ProVita/ProActiv (Becel)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid margarine (Melange, Olivero, Vita, Bremyk)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetable oils (sunflower/corn oil, soya oil, olive oil, rape-seed oil etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coconut/palm oil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other margarine __________________________</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other oil ________________________________</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ghee/nej/purified butter</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12. **Think back over the last 14 days. How often have you eaten the following food?**

<table>
<thead>
<tr>
<th>Food Description</th>
<th>Have not eaten</th>
<th>&lt; Once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>White bread (French bread, nan, breakfast crispbread etc.) and/or semi-whole-wheat bread <em>(kneipp)</em> rolls/buns/crispbread</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Whole-wheat and dark-brown bread/buns/crispbread, chapati</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Cereals/muesli with no or little sugar added <em>(oatmeal, four-grain etc)</em></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Use chart/pictures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cereals/muesli with much sugar added</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Use chart/pictures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White rice, macaroni, pasta/spaghetti, couscous</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Whole-wheat pasta or natural rice/long-grain rice/whole-grain rice, millet</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

13. **Think back over the last 14 days. How often have you used the following on sandwiches?**

<table>
<thead>
<tr>
<th>Food Description</th>
<th>Did not use</th>
<th>&lt; Once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>White cheese <em>(Norvegia, Gulost, Nækkelost, smøreost)</em> brown cheese, other fat cheese</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Lighter/lean white cheese/cheese spread, light brown cheese, whey cheese spread, other light/lean cheese</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Liver pâté, salami, saveloy/baloney, mutton sausage etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Liver pâté with less fat, liver pâté with &quot;healthy&quot; fat, ham, turkey slices, light saveloy/baloney</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Fish <em>(mackerel in tomato sauce, other mackerel, salmon, trout, sardines, anchovies, herring, caviar etc.)</em></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Jam, marmalade</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Light jam</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Chocolate or nut spread, Sunda, syrup, honey etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Mayonnaise salads <em>(Italian salad, shrimp salad etc.)</em></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Egg</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
14. **Think back over the last 14 days. How often have you eaten the following food?**

<table>
<thead>
<tr>
<th>Have not eaten</th>
<th>&lt; Once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cakes, angel-food cake, muffins, doughnuts, Danish pastries</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sweet cookies (cream cookies, chocolate cookies; Balerina, Bixit, wafer cookies, Mariekjeks, Kommo (graham wafers) etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sweet buns, skolebrød (bun with custard and icing), other sweet yeast-baked products</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Waffles, pancakes, sweet pancakes etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Chocolate/sweets/boiled sweets, snacks with sugar (Jell-O, Turkish delight)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Foreign sweet snacks (mithai, jalebi, halwa, zarda, la’du, baklava etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Ice-cream</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Desserts/pudding/creamed rice</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Dried fruit</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other sweet food/snacks</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

15. **Think back over the last 14 days. How often have you eaten the following food?**

<table>
<thead>
<tr>
<th>Have not eaten</th>
<th>&lt; Once a week</th>
<th>1-2 t/week</th>
<th>3-4 t/week</th>
<th>5-6 t/week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt snacks (crisps/potato chips with various flavours, tortilla chips), other fattening snacks, Bombay mix etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>“Light” snacks (pretzels, popcorn etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Nuts</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

16. **Think back over the last 14 days. How often do you eat the following meals during one week?**

*Tick a box for each meal*

<table>
<thead>
<tr>
<th>Meal</th>
<th>Never/rarely</th>
<th>Once a week</th>
<th>Twice a week</th>
<th>Three times a week</th>
<th>Four times a week</th>
<th>Five times a week</th>
<th>Six times a week</th>
<th>Every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Lunch</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Dinner</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Supper</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Midnight snack</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
17. Think back over the last 14 days. How often do you eat or drink one or more of the following in-between meals during the course of the day?

<table>
<thead>
<tr>
<th></th>
<th>Rarely</th>
<th>Once a day</th>
<th>Twice a day</th>
<th>Three times a day</th>
<th>Four times a day</th>
<th>More than four times a day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chocolate, sweets, snacks, soda pop/fizzy drink etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Fruit, slice of bread/crispbread etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

18. Think back over the last 14 days. Have you had a special diet during this period?  
☐ No ☐ Yes

If yes, what has been special about it?

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

19. Have you changed your diet after you became pregnant/after you gave birth?  
(cross out the alternative that does not fit)  
☐ No ☐ Yes

If yes, what changes have you made and when did you make these changes?

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

20. How would you describe your diet? (tick the box for the closest alternative)

My diet includes meat and fish ☐

I avoid meat, but eat fish ☐

I avoid fish, but eat meat ☐

I am a vegetarian and include milk products and eggs in my diet (ovo-lacto vegetarian) ☐

I am a vegetarian and include milk products but not eggs in my diet (lacto vegetarian) ☐

I am a vegetarian and exclude all milk products and eggs from my diet (vegan) ☐

THANKS FOR TAKING THE TIME TO ANSWER THESE QUESTIONS
Dette intervju-skjematet forser å fange opp kvinnens fysiske aktivitet før svangerskapet og i dette svangerskapet og hennes holdninger til fysisk aktivitet.

Fysisk aktivitet skal i tillegg registreres objektivt med Armband, helst i uken etter intervjuet. De fleste spørsmålene gjelder kvinnens subjektive opplevelse. Men i spørsmålene 3-5 ønsker vi å kunne danne oss et bilde av hennes aktivitetsnivå, blant annet for å finne ut om hun er så aktiv som helsemyndighetene anbefaler (sp 5).

Fysisk aktivitet omfatter både:

1. Fysisk aktivitet i hverdagen (i arbeid, fritid og hjemme, samt hvordan man forflytter seg til og fra arbeid og fritidssyssler)
2. Planlagte mosjonsaktiviteter (som å gå turer, svømming, dansing etc.)
3. Trening (for å bedre fysisk form, muskelstyrke og andre ferdigheter)

Forklaring til utfyllingen:
Bruk blå eller svart kulepenn. De fleste steder settes kryss eller tall. Bruk ellers store bokstaver og en bokstav per rute. Sett kryss mest mulig midt i avkrynsningsboksen. Dersom feil i utfyllingen, marker dette med å sette tre streker over boksen og kryss av på vanlig måte i den riktige boksen. Dersom behov for å notere ytterligere informasjon ut over hva det er avsatt plass til på skjemaet, kan du notere dette i morgen. Bare sør for at du ikke skriver i avkrynsningsboksene eller notatfelter. Eksempel på utfylling:

Ja  Nei  2256 gram

NB: Tekst i kursiv under spørsmålet, før svarkategori, er informasjon til intervjuer og skal ikke leses opp for kvinne.

**FYSISK AKTIVITET/FYSISK FORM FØR/UNDER SVANGERSKAP**

Selvvurdert fysisk aktivitet og fysisk form

1. Hvordan anser du at ditt fysiske aktivitetsnivå før tiden er?
   - Lavt
   - Ganske lavt
   - Middels
   - Ganske høyt
   - Høyt

   - Mye dårligere
   - Litt dårligere
   - Som andre kvinner på min egen alder
   - Litt bedre
   - Mye bedre
### Aktivitet - type, frekvens og varighet

3. Hvor ofte var du fysisk aktiv i de siste 3 månedene før dette svangerskapet?

Spor om alle aktiviteter og fyll enten ut "aldrig" eller angi frekvens og gjennomsnittlig varighet for aktuelle aktivitet. Vi er særlig interessert i å kartlegge aktivitet som er moderat (som ved rask gange) eller mer intensiv, å sykle eller gå til jobb, og å gå på jobben kan inkluderes hvis minst 10 minutters varighet av gangen. Se evt. intervjugeide i prosedyrebok.

<table>
<thead>
<tr>
<th>Aktivitet</th>
<th>Aldri</th>
<th>1-3 x /mond</th>
<th>1 x pr uke</th>
<th>2 x pr uke</th>
<th>3-6x pr uke</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Løp/jogg/orientering</td>
<td>Aldri</td>
<td>1-3 x /mond</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Sykling</td>
<td>Aldri</td>
<td>1-3 x /mond</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Helsestudio/styketrening</td>
<td>Aldri</td>
<td>1-3 x /mond</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Aerobics</td>
<td>Aldri</td>
<td>1-3 x /mond</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Dans (jazz, swing, rock ol.)</td>
<td>Aldri</td>
<td>1-3 x /mond</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Ballspill/netballspill</td>
<td>Aldri</td>
<td>1-3 x /mond</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Svømning</td>
<td>Aldri</td>
<td>1-3 x /mond</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Rask gange / turgang/ski</td>
<td>Aldri</td>
<td>1-3 x /mond</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Rolig gange</td>
<td>Aldri</td>
<td>1-3 x /mond</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Annet</td>
<td>Aldri</td>
<td>1-3 x /mond</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Hvis annet, hva?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Tidshubr (minutter):

4. Hvor ofte har du vært fysisk aktiv de siste 7 dager?

Spor om alle aktiviteter og fyll enten ut "aldrig" eller angi frekvens og gjennomsnittlig varighet for aktuelle aktivitet. Dette spørsmålet skal sammen med sp. 3 også brukes til å vurdere om kvinnene er så aktiv som helsetilstandene anbefaler (sp. 6). For at aktiviteten da skal regnes med, må den vere av moderat (som ved rask gange) eller hard intensitet. Den siste aktivitetstypi (rolig gange/spasertur) har ikke høy nok intensitet til å kunne regnes med, men enhver aktivitet er bedre enn ingen, ikke minst i forhold til onodegahtagskapet. Å sykle eller gå til jobb, og gå på jobben kan inkluderes hvis minst 10 minutters varighet av gangen. Se evt. intervjugeide i prosedyrebok.

<table>
<thead>
<tr>
<th>Aktivitet</th>
<th>Aldri</th>
<th>1 x pr uke</th>
<th>2 x pr uke</th>
<th>3-6x pr uke</th>
<th>Daglig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Løp/jogg/orientering</td>
<td>Aldri</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Sykling</td>
<td>Aldri</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Helsestudio/styketrening</td>
<td>Aldri</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Aerobics</td>
<td>Aldri</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Dans (jazz, swing, rock ol.)</td>
<td>Aldri</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Ballspill/netballspill</td>
<td>Aldri</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
<tr>
<td>Svømning</td>
<td>Aldri</td>
<td>1 x pr uke</td>
<td>2 x pr uke</td>
<td>3-6x pr uke</td>
<td>Daglig</td>
</tr>
</tbody>
</table>
39114

Unikt pas. løpenummer: 

Rask gange/ 
turflagger

☐ Aldri  ☐ 1 x pr uke  ☐ 2 x pr uke  ☐ 3-6 x pr uke  ☐ Daglig

Raelig gange

☐ Aldri  ☐ 1 x pr uke  ☐ 2 x pr uke  ☐ 3-6 x pr uke  ☐ Daglig

Annet

☐ Aldri  ☐ 1 x pr uke  ☐ 2 x pr uke  ☐ 3-6 x pr uke  ☐ Daglig

Hvis annet, hva?

---

5. Hvis du tenker på den siste måneden, var aktivitetsnivået ditt i fritiden de siste 7 dagene:

☐ Nye mindre enn vanlig  ☐ Litt mindre enn vanlig  ☐ Vanlig  ☐ Litt mer enn vanlig  ☐ Nye mer enn vanlig

Nå skal vi bruke svarene dine på spørsmål 4 og 5 og se på om du kan sies å være regelmessig fysisk aktiv, slik vi vil definere det her. Da må noe av din aktivitet minst være av moderat intensitet, som ved rask gange.

Hvis kvinnen har svart "nye mindre aktiv" eller "nye mer aktiv" i siste uke, be henne legge det vanlige aktivitetsnivået den foregående måneden til grunn.

6. Tenk på din fysiske aktivitet i dette svangerskapet. Er du i:

Moderat intensiv aktivitet 30 minutter minst 5 av ukens dager?  ☐ Ja  ☐ Nei

Moderat intensiv aktivitet totalt minst 2,5 timer/uke fordelt på minst 3 dager?  ☐ Ja  ☐ Nei

Hard aktivitet minst 20 minutter x 3/uka? (eks. som ved jogging)  ☐ Ja  ☐ Nei

Aktivitet av både hard og moderat intensitet (eks. hard aktivitet 1 gang /uka og moderat intensiv aktivitet 2 ganger /uka)  ☐ Ja  ☐ Nei

Hvis kvinnen svarer nei på alle 4 alternativene, gå til sp. 7 og la kvinnen finne det alternativet blant disse 3 som passer best.

Hvis kvinnen svarer ja på minst ett av de 4 alternativene, gå til sp. 8 og la kvinnen finne det alternativet blant disse som passer best.

7. Tenk på deg selv i dette svangerskapet. For å regne deg som regelmessig fysisk aktiv, må du ha svart ja på minst ett av alternativene under sp. 6.

Kryss av og gå direkte til spørsmål 10.

☐ Jeg er ikke regelmessig fysisk aktiv (minst moderat intensitet) og har ingen planer om å bli det

☐ Jeg er ikke regelmessig fysisk aktiv (minst moderat intensitet), men overveier en forandring

☐ Jeg er noe fysisk aktiv (minst moderat intensitet), men mindre enn angitt under 6


☐ Jeg er regelmessig fysisk aktiv, men har vært det i mindre enn 6 måneder

☐ Jeg er regelmessig fysisk aktiv og har vært det i mer enn 6 måneder

Hvis kvinnen svarer ja på det første av disse 2 alternativene, gå til sp. 10
9. Hvor lenge har du vært regelmessig fysisk aktiv?
☐ < 1 år  ☐ 1-5 år  ☐ 6-10 år  ☐ Mer enn 10 år

10. Har du endret fysisk aktivitetsnivå etter at du ble gravid?
☐ Mindre aktiv nå  ☐ Endret  ☐ Mer aktiv nå

11. Hvis du er mindre aktiv nå enn før du ble gravid – hva er hovedgrunnen(e) til det?

La kvinne svare på spørsmålet, før du presenterer de ulike kategoriene. Sett inn til 3 kryss

- Svangerskap relaterte plaget (tretthet/upplagthet, kvalme)  ☐ Ja  ☐ Nei
- Smarter som skar ved fysisk aktivitet  ☐ Ja  ☐ Nei
- Nyoppstått sykdom knyttet til svangerskapet  ☐ Ja  ☐ Nei
- Andre helseproblemer for deg  ☐ Ja  ☐ Nei
- Har fått råd av vennar/familie om å være mindre fysisk aktiv i svangerskapet  ☐ Ja  ☐ Nei
- Har fått råd av helsepersonell om å være mindre fysisk aktiv i svangerskapet  ☐ Ja  ☐ Nei
- Bekymring for barnet  ☐ Ja  ☐ Nei
- Har ikke tid  ☐ Ja  ☐ Nei
- Annet  ☐ Ja  ☐ Nei

MOTIVASJON FOR FYSISK AKTIVITET

Nå skal jeg først komme med en rekke påstander som du så skal si i hvilken grad du er enig i. Vi bruker skalaer med 3 til 7 punkter.

Individuelle faktorer

Den første skalaen har 7 punkter fra "Ikke i det hele tatt" til "Veldig sikker"

12. Tenk deg selv nå for tiden. Tenk deg alle formår for aktivitet. Ta stilling til påstanden: Jeg er sikker på at jeg kan gjennomføre planlagt fysisk aktivitet selv om:

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>Veldig Sikker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeg er trett</td>
<td>☐ 1</td>
</tr>
<tr>
<td>Jeg føler meg nedtrykt</td>
<td>☐ 1</td>
</tr>
<tr>
<td>Jeg er bekymret</td>
<td>☐ 1</td>
</tr>
<tr>
<td>Jeg er sint på grunn av noe</td>
<td>☐ 1</td>
</tr>
<tr>
<td>Jeg føler meg stresset</td>
<td>☐ 1</td>
</tr>
</tbody>
</table>
Også denne skalaen har 7 punkter fra "Helt enig" til "Helt uenig"

13. Tenk på deg selv nå for tiden. Tenk på alle former for aktivitet. For hver påstand, angi i hvilken grad du er enig/uenig.

<table>
<thead>
<tr>
<th>Helt enig</th>
<th>Helt uenig</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ 1</td>
<td>□ 2</td>
</tr>
<tr>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>□ 5</td>
<td>□ 6</td>
</tr>
<tr>
<td>□ 7</td>
<td></td>
</tr>
</tbody>
</table>

- Om jeg er regelmessig fysisk aktiv eller ikkje er helt opp til meg selv
- Hvis jeg ville, hadda jeg ikkje hatt noen problemar med å være regelmessig fysisk aktiv
- Jeg ville likt å være regelmessig aktiv, men jeg vet ikkje riktig om jeg kan få det til
- Jeg har full kontroll over å være regelmessig fysisk aktiv
- Å være regelmessig fysisk aktiv er vanskelig for meg

Nå har skalen 5 punkter fra "Passer dårlig" til "Passer bra"

14. Tenk på deg selv nå for tiden. I hvilken grad beskriver disse påstandene deg som person?

<table>
<thead>
<tr>
<th>Passer dårlig</th>
<th>Passer bra</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ 1</td>
<td>□ 2</td>
</tr>
<tr>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>□ 5</td>
<td></td>
</tr>
</tbody>
</table>

- Jeg ser på meg selv som en person som er opptatt av å være fysisk aktiv.
- Jeg tanke på meg selv som en person som er opptatt av å holde meg i god fysisk form
- Å være fysisk aktiv er en viktig del av hva jeg er

Nå har skalen 3 punkter fra "Stor effekt" til "Ingen effekt"

15. I hvilken utstrekning mener du at daglig fysisk aktivitet kan ha gunstig effekt for å forøvge følgende sykdommer?

Hvis kvinnen har problemar med å angi dette kan du tilføye:
Hvis du synes dette er vanskelig å svara på, kan du svare "Vet ikkje"

- Njehta – karusydom: □ Stor effekt □ Liten effekt □ Ingen effekt □ Vet ikke
- Muskel-skelettidelser: □ Stor effekt □ Liten effekt □ Ingen effekt □ Vet ikke
- Diabetes type 2: □ Stor effekt □ Liten effekt □ Ingen effekt □ Vet ikke
- Kraft: □ Stor effekt □ Liten effekt □ Ingen effekt □ Vet ikke
- Høyt blodtrykk: □ Stor effekt □ Liten effekt □ Ingen effekt □ Vet ikke
- Psykiske lidelser: □ Stor effekt □ Liten effekt □ Ingen effekt □ Vet ikke
- Overvekt og fødme: □ Stor effekt □ Liten effekt □ Ingen effekt □ Vet ikke
- Mage-/tarmesykdommer: □ Stor effekt □ Liten effekt □ Ingen effekt □ Vet ikke
- Astma og allergi: □ Stor effekt □ Liten effekt □ Ingen effekt □ Vet ikke

Unikt pas. løsnummer: [ ] [ ] [ ]
Sosiale faktorer

I de neste utsagnene har skalaen 5 punkter fra "Aldri" til "Veldig ofte". Først er det 6 utsagn om familien din, deretter 6 utsagn om vennene dine.

16. Tenk på deg selv nå for tiden. Har familien din (medlemmer i husstanden):
Hvis kvinnene har problemer med å angi dette kan du tilføye:
Hvis du synes dette er vanskelig å svare på, kan du svare "Passer ikke"

1. Oppmuntrat deg til å være fysisk aktiv?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

2. Diskutert fysisk aktivitet sammen med deg?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

3. Forandret planene sine, slik at dere kunne drive fysisk aktivitet sammen?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

4. Overtatt oppgaver for deg, slik at du fikk mer tid til å være fysisk aktiv?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

5. Sagt at fysisk aktivitet vil være bra for helsen din?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

6. Snakket om hvor godt de liker å være fysisk aktiv?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

17. Tenk på deg selv nå for tiden. Har vennene dine/bekjente/familie medlemmer utenfor husstanden:
Hvis kvinna har problemer med å angi dette kan du tilføye:
Hvis du synes dette er vanskelig å svare på, kan du svare "Passer ikke"

1. Foreslått at dere skulle drive fysisk aktivitet sammen?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

2. Oppmuntrat deg til å være fysisk aktiv?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

3. Gitt deg hjelpsomme påminnelser om fysisk aktivitet som: "Skal du møte megere i kveld?"
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

4. Forandret planene sine, slik at dere kunne drive fysisk aktivitet sammen?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

5. Sagt at fysisk aktivitet vil være bra for helsen din?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke

6. Snakket om hvor godt de liker å være fysisk aktiv?
   □ Aldri □ Sjelden □ Noen få ganger □ Ofte □ Veldig ofte □ Passer ikke
Hør har skalaen 4 punkter fra ”Helt uenig” til ”Helt enig”

18. Tenk på deg selv nå for tiden. Folk som er viktige for meg:

- Synes jeg bør være fysisk aktiv □ Helt uenig □ Litt uenig □ Litt enig □ Helt enig
- Synes det er bra om jeg er fysisk aktiv □ Helt uenig □ Litt uenig □ Litt enig □ Helt enig
- Vil at jeg skal være fysisk aktiv □ Helt uenig □ Litt uenig □ Litt enig □ Helt enig
- Synes det er upassende at jeg er fysisk aktiv □ Helt uenig □ Litt uenig □ Litt enig □ Helt enig
- Likene ikke at jeg er fysisk aktiv □ Helt uenig □ Litt uenig □ Litt enig □ Helt enig

Hør har skalaen 5 punkter fra ”Ingen” til ”Alle”

19. Av folk du kjenner godt - hvor mange er fysisk aktive minst 3 ganger i uka?
□ Ingen □ Noen få □ En god del □ De aller fleste □ Alle

Av folk på din alder som du kjenner godt - hvor mange er fysisk aktive minst 3 ganger i uka?
□ Ingen □ Noen få □ En god del □ De aller fleste □ Alle

Av kvinner på din alder som du kjenner godt - hvor mange er fysisk aktive minst 3 ganger i uka?
□ Ingen □ Noen få □ En god del □ De aller fleste □ Alle

20. Hvor ofte ser du voksne i nabolaget ditt i en eller annen form for fysisk aktivitet?
□ Veldig ofte □ Ofte □ Noen ganger □ Sjelden □ Aldri

21. Hvor ofte ser du andre kvinner på din egen alder i nabolaget ditt i en eller annen form for fysisk aktivitet?
□ Veldig ofte □ Ofte □ Noen ganger □ Sjelden □ Aldri

22. Hvor mange ganger per uke er din ektefelle/samboer/barnets far i fysisk aktivitet nå for tiden?
□ Mer enn 3 g/uka □ 1-3 g/uke □ 1-3 g/mnd □ Sjeldnere □ Vet ikke

Opplevelse av omgivelsene i ditt nærmiljø i forhold til fysisk aktivitet

23. Omtrent hvor lang tid vil det ta for deg å gå hjemmefra til:

□ Butikk for dagligvarer □ 1-5 min □ 6-10 min □ 11-20 min □ 21-30 min □ > 30 min □ Vet ikke
□ Et friskår/gård/park/tilberedt □ 1-5 min □ 6-10 min □ 11-20 min □ 21-30 min □ > 30 min □ Vet ikke
□ Helsestudio/træningsenter/svømmehall □ 1-5 min □ 6-10 min □ 11-20 min □ 21-30 min □ > 30 min □ Vet ikke
24. Er det i ditt nærmiljø:

- Trygge steder å gå (park/friser, turvei, fottrase) som er tilstrekkelig hellyst
  - Helt uenig  □ Litt uenig □ Litt enig □ Helt enig

- Mange steder der du kan være fysisk aktiv (utendørs, svømmehall etc.)
  - Helt uenig  □ Litt uenig □ Litt enig □ Helt enig

- Flere tilrettelagte tilbud om trening og fysisk aktivitet (som kunne være aktuelle for deg)
  - Helt uenig  □ Litt uenig □ Litt enig □ Helt enig

- Greit å gå til butikker (10-15 min å gå, fortøyt langs de fleste veirområde)
  - Helt uenig  □ Litt uenig □ Litt enig □ Helt enig

- Lett tilgang til gang- eller sykkelveier
  - Helt uenig  □ Litt uenig □ Litt enig □ Helt enig

- Så mye trafikk i gateområdet at det er vanskelig eller lite hyggelig å gå
  - Helt uenig  □ Litt uenig □ Litt enig □ Helt enig

- Fotgjengerrørseng og lyssignaler som gjør det enklere å krysse veier.
  - Helt uenig  □ Litt uenig □ Litt enig □ Helt enig

25. Disponerer du en sykkel?

- Ja  □ Nei

- Er du vant til å sykle?

- Ja  □ Nei

26. Eier du/barnefaren egen bil?

- Ja  □ Nei

27. Min kommune/bydel tilrettelegger for lige for fysisk aktivitet

- Helt uenig  □ Litt uenig □ Litt enig □ Helt enig

TAKK FOR AT DU HAR TATT DEG TID TIL Å SVARE PÅ SPØRSMÅLENE!
PHYSICAL ACTIVITY – FORM NO. 1

Information for the interviewer:
The aim of this interview questionnaire is to ascertain the physical activity of the woman before her pregnancy and during the pregnancy, and to ascertain what her attitude is to physical activity. The physical activity shall also be registered objectively with the armband, preferably the week after this interview. Most of the questions refer to the woman’s subjective understanding. But the aim of questions 3-5 is to form a picture of her activity level, to find out, among other things, if she is as active as the health authorities recommend (question 6).

Physical activity means:
1. Physical activity in day-to-day life (at work, leisure time and in the home, and how one gets to and from work and leisure activities)
2. Planned exercise activities (such as going for walks, swimming, dancing etc.)
3. Exercising (to improve your physical shape, strengthen muscles and improve other skills)
Text in italics is information for the interviewer and is not to be read to the woman being interviewed.

1. How would you rate your physical activity level at present?
□ Low □ Fairly low □ Average □ Quite high □ High

2. Think back over the last three months before this pregnancy. What physical shape were you in compared to other women of your age? Think, for example, about your capacity when you walked up stairs or hills.
□ Much worse □ A little worse □ The same as other women of my age
□ A little better □ Much better

3. How often were you physically active during the last three months before this pregnancy?
We are especially interested in activity that is moderate (e.g. brisk walking) or more intense. Bicycling or walking to work, and walking on the job can be included if at least 10 minutes’ duration each time.

Time used (minutes):
□ Never □ 1-3 x/month □ 1 x per week □ 2 x per week □ 3-6 x per week □ Daily □□□

Run/jog/orienteering
Bicycling
Fitness centre/weight-lifting
Aerobics
Dance (jazz, swing, rock etc)
Ball sports/netball
Swimming
Brisk walking/hiking/skiing
Strolling
Other
If other, what?.......
4. How often have you been physically active the last 7 days?
This question will be used with question 5 to assess if the woman is as active as the health authorities recommend (question 6.) For the activity to be taken into consideration, it must be of moderate (e.g. brisk walking) or hard intensity. The last type of activity (strolling/walking) does not have a high enough intensity to be included, but any activity is better than nothing at all, not least in terms of energy use. Bicycling or walking to work, and walking on the job can be included if of at least 10 minutes’ duration each time.

Time used (minutes):

□ Never □ 1 x per week □ 2 x per week □ 3-6x per week □ Daily □ ☐ ☐

- Run/jog/orienteering
- Bicycling
- Fitness centre/weight-lifting
- Aerobics
- Dance (jazz, swing, rock etc.)
- Ball sports/netball
- Swimming
- Brisk walking/hiking/skiing
- Strolling
- Other
- If other, what?......

5. If you think back over the last month, was your leisure-time activity level during the last 7 days:

□ Much less than usual □ A little less than usual □ The usual □ A little more than usual
□ Much more than usual

Now we will use your answers to questions 4 and 5 to see if it can be said that you are physically active on a regular basis as we define it here. In this case, some of your activities must be of moderate intensity, as for example brisk walking.

If you have answered “Much less than usual” or “Much more than usual” over the last week, we will ask you to use the activity level from the previous month as the basis for your answers below.

6. Think about your physical activity during this pregnancy. Do you practise:

□ Yes □ No

Moderately intensive activity for 30 minutes at least 5 days of the week?
Moderately intensive activity in total at least 2.5 hours/week over at least 3 days?
Hard activity (e.g. jogging) at least 20 minutes 3 times a week?
Activity of both hard and moderate intensity (e.g. hard activity once a week and moderately intensive activity twice a week)

If the woman answers “no” to all four alternatives, go to question 7 and let her find the one of the three alternatives that fits her best.

If the woman answers “yes” to at least one of the four alternatives, go to question 8 and let her find the alternative that fits her best.
7. Think about yourself during this pregnancy. To count yourself as regularly physically active, you must have answered yes to at least one of the alternatives under question 6.

- I am not regularly physically active (at least moderate intensity) and have no plans for being so
- I am not regularly physically active (at least moderate intensity) but I am considering a change
- I am somewhat physically active (at least moderate intensity), but less than stated under question 6

8. To be filled in if the woman has answered “yes” to one or more of the alternatives in item 6.

- I am regularly physically active, but have been so for less than 6 months
- I am regularly physically active and have been so for more than 6 months

If the woman answers “yes” to the first of these two alternatives, go to question 10

9. How long have you been regularly physically active?

- Under 1 year
- 1-5 years
- 6-10 years
- More than 10 years

10. Have you changed your physical activity level after you became pregnant?

- Less active now
- Unchanged
- More active now

11. If you are less active now than before you became pregnant – what is the main reason/reasons for this?

Let the woman answer the question before you present the categories below. Tick up to three boxes

- Pregnancy related disorders (fatigue/drowsy, nauseous)
- Pain which increases with physical activity
- New illness connected to the pregnancy
- Other health problems you have
- Have been advised by friends/family to be less physically active during your pregnancy
- Have been advised by health care staff to be less physically active during your pregnancy
- Worried about the baby
- Don’t have time
- Other

Now I am going to read a number of statements for which I want you to indicate the degree to which you agree with them. We use scales with 3 to 7 points.

The first scale has 7 points ranging from "Not at all" to "Very sure".
12. Think about how things are for you now. Think about all the types of activity. Decide how you would answer each statement: I’m sure that I can carry out the planned physical activity even if:

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Very sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am tired</td>
<td>□ 1 □ 2</td>
<td>□ 3 □ 4</td>
</tr>
<tr>
<td>I feel depressed</td>
<td>□ 1 □ 2</td>
<td>□ 3 □ 4</td>
</tr>
<tr>
<td>I’m worried</td>
<td>□ 1 □ 2</td>
<td>□ 3 □ 4</td>
</tr>
<tr>
<td>I’m angry because of something</td>
<td>□ 1 □ 2</td>
<td>□ 3 □ 4</td>
</tr>
<tr>
<td>I feel stressed</td>
<td>□ 1 □ 2</td>
<td>□ 3 □ 4</td>
</tr>
</tbody>
</table>

This scale also has 7 points ranging from "Totally agree" to "Totally disagree".

13. Think about how things are for you now. Think about all the types of activity. For each statement, state the degree to which you agree/disagree.

<table>
<thead>
<tr>
<th></th>
<th>Totally agree</th>
<th>Totally disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whether I am regularly physically active or not, is entirely up to me</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>If I want to, I would have no problems being regularly physically active</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>I would have liked to have been regularly physically active, but I’m not really sure if I can manage</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>I have full control over being regularly physically active</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>Being regularly physically active is difficult for me</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
</tbody>
</table>

Now the scale has 5 points ranging from "Does not fit well" to "Fits well"

14. Think about how things are for you now. To what degree do these statements describe you as a person?

<table>
<thead>
<tr>
<th></th>
<th>Does not fit well</th>
<th>Fits well</th>
</tr>
</thead>
<tbody>
<tr>
<td>I see myself as a person who is concerned about being physically active</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5</td>
<td></td>
</tr>
<tr>
<td>I think of myself as a person who is concerned about keeping in good physical shape</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5</td>
<td></td>
</tr>
<tr>
<td>Being physically active is an important part of who I am</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5</td>
<td></td>
</tr>
</tbody>
</table>
Now the scale has 3 points ranging from "Great effect" to "No effect"

15. To what degree do you feel that daily physical activity can have a beneficial effect in preventing the following illnesses?

*If the woman has problems answering this, you can add: If you think this is difficult to answer, you can answer "Don’t know".*

☐ Great effect  ☐ Little effect  ☐ No effect  ☐ Don’t know

Cardio-vascular illnesses  
Muscular/skeletal disorders  
Diabetes type 2  
Cancer  
High blood pressure  
Mental disorders  
Being overweight/obese  
Abdominal/intestinal illnesses  
Asthma and allergies

In the next statements the scale has 5 points ranging from "Never" to "Very often".
First there are 6 statements about your family, and then 6 statements about your friends.

16. Think about how things are for you now. Have your family (members of your household):

*If the woman has problems answering this, you can add: If you think this is difficult to answer, you can answer "Does not fit well".*

☐ Never  ☐ Seldom  ☐ A few times  ☐ Often  ☐ Very often  ☐ Does not fit well

1. Encouraged you to be physically active?

2. Discussed physical activity with you?

3. Changed their plans so that you could take part in physical activity together?

4. Taken over chores for you, so that you have more time to be physically active?

5. Said that physical activity would be good for you health?

6. Talked about how much they like being physically active?
17. Think about how things are for you now. Have your friends/acquaintances/family members outside the household:
If the woman has problems answering this, you can add: If you think this is difficult to answer, you can answer "Does not fit ".

□ Never □ Seldom □ A few times □ Often □ Very often □ Does not fit

1. Suggested that you should take part in physical activity together?
2. Encouraged you to be physically active?
3. Given you such helpful reminders about physical activity as: "Shall we go for a walk tonight?"
4. Changed their plans so that you could take part in physical activity together?
5. Said that physical activity would be good for your health?
6. Talked about much they like being physically active?

Here the scale has 4 points ranging from "Totally disagree" to "Totally agree"

18. Think about how things are for you now. People who are important to me:

□ Totally disagree □ Slightly disagree □ Slightly agree □ Totally agree

Think I should be physically active
Think it is good if I’m physically active
Want me to be physically active
Think it improper that I’m physically active
Do not like that I’m physically active

19. Here the scale has 5 points ranging from "None" to "Everybody"

Of people you know well – how many are physically active at least 3 times a week?
□ None □ A few □ Quite a few □ Just about everybody □ Everybody

Of people your age who you know well – how many are physically active at least 3 times a week?
□ None □ A few □ Quite a few □ Just about everybody □ Everybody

Of women your age who you know well – how many are physically active at least 3 times a week?
□ None □ A few □ Quite a few □ Just about everybody □ Everybody
20. How often do you see adults in your neighbourhood in one or another form of physical activity?
☐ Very often ☐ Often ☐ Sometimes ☐ Seldom ☐ Never

21. How often do you see other women your age in your neighbourhood in one or another form of physical activity?
☐ Very often ☐ Often ☐ Sometimes ☐ Seldom ☐ Never

22. How many times a week does your spouse/cohabitant/the child’s father take part in a physical activity these days?
☐ More than 3 times a week ☐ 1-3 t/week ☐ 1-3 t/month ☐ Less often ☐ Don’t know

23. About how long would it take you to walk from home to:
☐ 1-5 min ☐ 6-10 min ☐ 11-20 min ☐ 21-30 min ☐ > 30 min ☐ Don’t know

The grocer’s
A recreational area, park or walking/hiking path
Fitness centre, swimming pool

24. Do you find the following in your neighbourhood:
☐ Totally disagree ☐ Slightly disagree ☐ Slightly agree ☐ Totally agree
Safe places to walk (park, recreational area, hiking path, pavement) which is adequately lit
Many places where you can be physically active (outdoor areas, swimming pool etc.)
Several exercise and physical-activity programmes (which could interest you)
Easy to walk to shops (10-15 minutes to walk, pavement along most of the streets)
Easy access to walking or bicycle paths
So much traffic in the streets that it is difficult or unpleasant to walk there
Pedestrian crossings and traffic lights that make it easier to cross the streets

25. Do you have a bicycle you can use? ☐ Yes ☐ No

26. Do you/the child’s father own a car? ☐ Yes ☐ No
Are you used to bicycling? ☐ Yes ☐ No

27. My municipality/city district does not do enough to promote physical activity
☐ Totally disagree ☐ Slightly disagree ☐ Slightly agree ☐ Totally agree

THANKS FOR TAKING THE TIME TO ANSWER THESE QUESTIONS!
<table>
<thead>
<tr>
<th>Kode intervjuer</th>
<th>Intervjuers initialer</th>
<th>Undersøkelsesdato</th>
<th>Besøksnummer (1-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Kvinnens fødselsdato</th>
<th>Før ultralyd</th>
<th>Etter ultralyd</th>
<th>Svangerskapsuke</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Arm:</th>
<th>Høyre</th>
<th>Venstre</th>
<th>Overarmsomkrets:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>BT-apparat (Omron BT-apparat nr.)</th>
<th>BT-apparat (Annet apparat nr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Blodtrykk:</th>
<th>1. måling:</th>
<th>2. måling:</th>
<th>3. måling:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syst (mmHg):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diast (mmHg):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puls/slag pr. min</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Høyde (cm + 1 desimal):</th>
<th>1. måling:</th>
<th>2. måling:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omkrets midje og hofte:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midje (cm + 1 desimal)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hofte (cm + 1 desimal)</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Hudfoldtykkelse:</th>
<th>1. måling:</th>
<th>2. måling:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triceps (mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subscapulær (mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suprailiaca (mm)</td>
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<td></td>
</tr>
</tbody>
</table>

| Bioimpedanse: | | | |
|---------------|----------------|
| Vekt (kg + 1 desimal) | BMR (kcal/kj) |
| BMI beregnet | TBW (kg + 1 desimal) |

<table>
<thead>
<tr>
<th>Totalt:</th>
<th>Truncal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fett (kg):</td>
<td>Right leg:</td>
</tr>
<tr>
<td>Fett (%):</td>
<td>Left leg:</td>
</tr>
</tbody>
</table>

Samlet vektøkning gjennom svangerskapet (Kun 3 mnd etter fødsel) | Vektøkning (kg): | Predicted body muscle mass (kg):

<table>
<thead>
<tr>
<th></th>
<th>Right arm:</th>
<th>Left arm:</th>
<th>Truncal:</th>
</tr>
</thead>
</table>

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