

Questions documentation

Kropp og helse - foreldreskjema
Body and health – MoBa parents
(MoBa 1st generation – spring 2025)

The Norwegian Mother, Father and Child Cohort Study
(MoBa)

Pilot: 13.02.25 (Sample: 2,000 MoBa parents)
Main distribution: 24.03.25 (Sample: All mothers and fathers in MoBa who did not participate in the pilot)

Version	Date	Performed by	Description
1.0	03.02.2025	Helga Ask (NIPH)	Original version

LIST OF CONTENTS

Instrument	3
Appetite	4
Diet.....	7
Eating disorder symptoms.....	12
Binge eating.....	15
Eye health.....	16
Unpaid care provision	19
Quality of life	24
Height, Weight and handedness	26

Instrument

1. Name of original instrument/question:

Original name of scale (*no name* if only single question)

List wording of questions included in the section (with number from questionnaire in front) and write response categories (with values used in the dataset)

2. Description of original scale or selection of items used:

Description of analytical approaches for selecting just a sample of items from a scale

If single question. NOT RELEVANT

If selection of established short version, make referral to literature and/or use

Where does the Q/scale come from, what is it meant to measure. Description of number of items, subscales. Where the Q/scale has been used and any information that give insight into what instrument this is.

Primary references of the instrument as well as important secondary publications if relevant.

3. Rationale for choosing the instrument:

What is it meant to measure and IF RELEVANT: Why this measure was chosen (if relevant).

4. Modifications:

Describe modifications during the study from one version to another.

Write if omitted or added from one version to another

If you have any comments that may improve this document, please contact morbarndata@fhi.no.

Appetite

Q		Response options	Variable name
	Please read the statements and check the option that best describes you <i>[Matrix with radio buttons]</i>		
1	I love food.	<ol style="list-style-type: none"> 1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree 	KHF11
	I enjoy eating.		KHF12
	I look forward to mealtimes.		KHF13
	If I miss a meal I get irritable.		KHF14
	I eat more when I am upset.		KHF15
	I often leave food on my plate at the end of the meal.		KHF16
	I enjoy tasting new food.		KHF17
	I often feel hungry when I am with someone who is eating.		KHF18
2	I eat more when I'm anxious.	<ol style="list-style-type: none"> 1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree 	KHF19
	Given the choice, I would eat most of the time.		KHF20
	I eat less when I'm angry.		KHF21
	I am interested in tasting new food I haven't tasted before.		KHF22
	I eat less when I'm upset.		KHF23
	I eat more when I'm angry.		KHF24
	I am always thinking about food.		KHF25
	I often get full before my meal is finished.		KHF26

3	I enjoy a wide variety of foods.	1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree	KHF27
	I am often last at finishing a meal.		KHF28
	I eat more and more slowly during the course of a meal.		KHF29
	I often feel so hungry that I have to eat something right away.		KHF30
	I eat slowly.		KHF31
	I get full up easily.		KHF32
	I often feel hungry.		KHF33
	I eat less when I'm anxious.		KHF34

1. Name of original instrument/question:

The Adult Eating Behavior Questionnaire (AEBQ)

2. Description of original scale or selection of items used:

The AEBQ¹ was developed in the UK and is an adaption of the Childhood Eating Behaviour Questionnaire (CEBQ) to enable comparisons between child and adult eating behavior. The original AEBQ contains 35 items capturing the following eight subscales: Hunger (5 items involving the physical experience of hunger), Food responsiveness (4 items - eating in response to external food cues), Emotional overeating (5 items, eating more in response to negative emotions), Enjoyment of food (3 items, being interested in and enjoying meals), Satiety responsiveness (4 items, being sensitive to internal signals of hunger and fullness), Emotional undereating (5 items, eating less in response to negative emotions), Food fussiness (5 items, being highly selective about which foods are accepted) and Slowness in eating (4 items, eating speed). All AEBQ items are rated along a 5-point Likert scale (1 = “strongly disagree”; 5 = “strongly agree”). The factor structure and reliability has been evaluated among adolescents². A study by Bjørklund and colleagues highlights the comparability and validity of the CEBQ and the AEBQ in a Norwegian sample of 14-year-old children³

24 items were selected for this data collection. The selection was done by the Early-Growth research team at the University of Bergen (PI: Stefan Johansson) and was based on the Bjørklund et al.³ large-scale validation of the AEBQ in the *Trondheim Early Secure Study* among 636 individuals age 14 years. Items were selected based on 1) standardized factor

loadings, prioritizing items with the best internal factor score for each domain and 2) consistency and direct comparability with the CEBQ items used in the 8-year questionnaire in MoBa. The domains Enjoyment of Food and Hunger were not present in the CEBQ version in MoBa (8 year) and therefore, factor loadings with highest factor loadings were selected for these domains. The domain Emotional Overeating showed weak, and the domain Emotional Undereating showed no significant correlation between CEBQ and AEBQ in Bjørklund et al. Hence, the emotions captured by the three items were reorganized to match the highest standardized factor loading. This shifts the captured emotions from CEBQ (worried, annoyed and anxious) to AEBQ (upset, angry, anxious). The same emotions were selected for Under- and Overeating.

The selected instrument includes 3 items for each domain: **Food Responsiveness** (I am always thinking about food; Given the choice I would eat most of the time; I often feel hungry when I am with someone who is eating), **Emotional Overeating** (I eat more when I am upset; I eat more when I am anxious; I eat more when I am angry), **Emotional Undereating** (I eat less when I am upset; I eat less when I am anxious; I eat less when I am angry), **Enjoyment of Food** (I enjoy eating; I love food; I look forward to meal times), **Hunger** (I often feel so hungry that I have to eat right away; I often feel hungry; If I miss a meal I get irritable), **Satiety Responsiveness** (I get full up easily; I often leave food on my plate at the end of the meal; I often get full before my meal is finished), **Slowness in Eating** (I eat slowly; I am often last at finishing a meal; I eat more and more slowly during the course of a meal), **Food Fussiness** (I am interested in tasting new food I haven't tasted before; I enjoy tasting new food; I enjoy a wide variety of food)

1. Hunot C, Fildes A, Croker H, Llewellyn CH, Wardle J, Beeken RJ. Appetitive traits and relationships with BMI in adults: Development of the Adult Eating Behaviour Questionnaire. *Appetite*. 2016;105:356-363. doi:10.1016/j.appet.2016.05.024
2. Hunot-Alexander C, Beeken RJ, Goodman W, et al. Confirmation of the Factor Structure and Reliability of the “Adult Eating Behavior Questionnaire” in an Adolescent Sample. *Front Psychol*. 2019;10:1991. doi:10.3389/fpsyg.2019.01991
3. Bjørklund O, Wichstrøm L, Llewellyn C, Steinsbekk S. Validation of the adult eating behavior questionnaire in a Norwegian sample of adolescents. *Appetite*. 2024;192:107116. doi:10.1016/j.appet.2023.107116

3. Rationale for choosing the instrument:

The Adult Eating Behaviour Questionnaire is a widely used and validated tool developed to enable comparisons with the CEBQ (that was used at age 8 MoBa) and shows good validity both in adolescents and adults.

4. Modifications:

Apart from the selection of a subset of the questions due to space restrictions, no modifications to the original question structure and/or phrasing were done.

Diet

Q		Response options	Variable name
When answering the following questions, think about the past 12 months and try to estimate which response options fit best			
4	<p>Do any of the following apply to you or your diet?</p> <p><i>Multiple answers are possible.</i></p> <p><i>[Multiple choice]</i></p>	Vegetarian diet Vegan diet (plant-based only) Pescatarian diet (plant-based foods, fish, dairy, eggs, but no meat) "Flexitarian" diet (eat more plant-based, including dinner) Fasting/intermittent fasting (e.g., 5 – 2 diet) Calorie-reduced diet (e.g., Grete Roede) Low-carb diet Keto-diet Carnivore diet Paleo diet/Stone age diet Blood type diet Raw food diet Mediterranean diet Macrobiotic diet FODMAP-diet (and possibly other allergy/intolerance-related diets) Pregnant Breastfeeding Other None of these	KHF35 KHF36 KHF37 KHF38 KHF39 KHF40 KHF41 KHF42 KHF43 KHF44 KHF45 KHF46 KHF47 KHF48 KHF49 KHF50 KHF51 KHF52 KHF53
5	<p>How often do you eat together with others?</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Never or rarely 2. 1-2 times per week 3. 3-4 times per week 4. 5-6 times per week 5. Every day 	KHF54
6	<p>How often do you eat vegetables?</p> <p><i>Answer in terms of portions, where one portion is equivalent to, for example, a</i></p>	<ol style="list-style-type: none"> 1. Never 2. Less than once a week 3. Once a week 4. 2–3 times a week 5. 4–6 times a week 6. Every day 	KHF55

	<p><i>medium-sized carrot or a small bowl of salad. Vegetables do not include potatoes.</i></p> <p><i>[Radio buttons]</i></p>	<p>7. Several times a day</p>	
7	<p>How often do you eat fruit and berries?</p> <p><i>Answer in terms of portions, where one portion is equivalent to one fruit or a large handful of berries (approximately 1 dl).</i></p> <p><i>[Radio buttons]</i></p>	<p>1. Never 2. Less than once a week 3. Once a week 4. 2–3 times a week 5. 4–6 times a week 6. Every day 7. Several times a day</p>	KHF56
8	<p>How often do you drink juice/fruit smoothies?</p> <p><i>Answer in terms of kitchen glasses (1 glass = approximately 200 ml.)</i></p> <p><i>[Radio buttons]</i></p>	<p>1. 0 glasses monthly 2. 1–3 glasses monthly 3. 1 glass per week 4. 2–6 glasses weekly 5. 1 glass daily 6. 2–3 glasses daily 7. More than 3 glasses daily</p>	KHF57
9	<p>How often do you eat whole grain products (e.g. wholegrain bread*, muesli, porridge, and wholegrain pasta)?</p> <p><i>*Here, we mean bread that is coarser than regular white bread (equivalent to at least 3/4 coloured circle on the "Bread Scale").</i></p> <p><i>[Radio buttons]</i></p>	<p>1. Never 2. Less than once a week 3. Once a week 4. 2–3 times a week 5. 4–6 times a week 6. Every day 7. Several times a day</p>	KHF58
10	<p>How often do you drink sugar-containing soft drinks/cordials (including iced tea, iced coffee, and nectar, but not energy drinks)?</p> <p><i>Answer in the number of kitchen glasses (1 glass = approximately 200 ml).</i></p> <p><i>[Radio buttons]</i></p>	<p>1. 0 glasses monthly 2. 1–3 glasses monthly 3. 1 glass weekly 4. 2–6 glasses weekly 5. 1 glass daily 6. 2–3 glasses daily 7. More than 3 glasses daily</p>	KHF59
11	<p>How often do you drink artificially sweetened soft drinks/cordials (including iced tea, iced coffee, and nectar, but not energy drinks)?</p> <p><i>Answer in the number of kitchen glasses (1 glass = approximately 200 ml).</i></p> <p><i>[Radio buttons]</i></p>	<p>1. 0 glasses monthly 2. 1–3 glasses monthly 3. 1 glass weekly 4. 2–6 glasses weekly 5. 1 glass daily 6. 2–3 glasses daily 7. More than 3 glasses daily</p>	KHF60
12	<p>How often do you drink water?</p> <p><i>With or without carbonation. Answer in the number of kitchen glasses (1 glass = approximately 200 ml).</i></p>	<p>1. 0 glasses monthly 2. 1–3 glasses monthly 3. 1 glass weekly 4. 2–6 glasses weekly 5. 1 glass daily 6. 2–3 glasses daily</p>	KHF61

	<i>[Radio buttons]</i>	7. More than 3 glasses daily	
13	How often do you eat fish as a main course for dinner or lunch? <i>Do not count fish as a sandwich topping.</i> <i>[Radio buttons]</i>	1. Never 2. Less than once a week 3. 1 time a week 4. 2-3 times a week 5. 4-6 times a week 6. Every day 7. Several times daily	KHF62
14	How often do you eat red meat as a main course for dinner or lunch (e.g. steak, minced meat, sausages or similar)? <i>Red meat is meat from pigs, cattle (cow/ox/calf), sheep, and goats. Meat from chicken or turkey is not red meat.</i> <i>[Radio buttons]</i>	1. Never 2. Less than once a week 3. 1 time a week 4. 2-3 times a week 5. 4-6 times a week 6. Every day 7. Several times daily	KHF63
15	How much cow's milk do you drink? <i>This includes regular milk, cultured milk, and flavoured milk. Answer in the number of kitchen glasses (1 glass = approximately 200 ml).</i> <i>[Radio buttons]</i>	1. 0 glasses monthly 2. 1-3 glasses monthly 3. 1 glass weekly 4. 2-6 glasses weekly 5. 1 glass daily 6. 2-3 glasses daily 7. More than 3 glasses daily	KHF64
16	How often do you eat yoghurt? <i>[Radio buttons]</i>	1. Never 2. Less than once a week 3. 1 time a week 4. 2-3 times a week 5. 4-6 times a week 6. Every day 7. Several times daily	KHF66
17	How often do you eat cakes/buns/sweet biscuits? <i>[Radio buttons]</i>	1. Never 2. Less than once a week 3. 1 time a week 4. 2-3 times a week 5. 4-6 times a week 6. Every day 7. Several times daily	KHF67
18	How often do you eat crisps and salty snacks? <i>[Radio buttons]</i>	1. Never 2. Less than once a week 3. 1 time a week 4. 2-3 times a week 5. 4-6 times a week 6. Every day 7. Several times daily	KHF68
19	How often do you eat fast food from kiosks, petrol stations, or burger/pizza chains (e.g. hot food such as hot dogs, hamburgers, chips, pizza, kebabs, or similar)?	1. Never 2. Less than once a week 3. 1 time a week 4. 2-3 times a week	KHF69

	<i>[Radio buttons]</i>	<ol style="list-style-type: none"> 5. 4-6 times a week 6. Every day 7. Several times daily 	
20	<p>How often do you drink a 0.5-litre can of energy drink like Red Bull, Monster, Burn, etc.?</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Never 2. 1-3 times per month 3. 1 time per week 4. 2-6 times per week 5. 1 time per day 6. 2-3 times per day 7. More than three times per day 	KHF70
20.1	<p>Energy drinks are either sweetened with sugar or artificial sweeteners. What proportion of the energy drinks you consume contain regular sugar?</p> <p><i>This item is only displayed if the option "1-3 times per month," "1 time per week," "2-6 times per week," "1 time per day," "2-3 times per day," or "More than 3 times per day" is selected in question 20. "How often do you drink a 0.5-litre can of energy drink like Red Bull, Monster, Burn, etc.?"</i></p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. None 2. <25% 3. 25-49% 4. 50-74% 5. 75-99% 6. All 	KHF71
Version A			
15.1	<p>What type of cow's milk do you drink the most?</p> <p><i>This item is only displayed if the option "1-3 glasses monthly," "1 glass weekly," "2-6 glasses weekly," "1 glass daily," "2-3 glasses daily," or "More than 3 glasses daily" is selected in question 15. "How much cow's milk do you drink?"</i></p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Whole milk (at least 3.5% fat) 2. Semi-skimmed milk, including vitamin D enriched semi-skimmed milk or medium milk (0.5-1.8% fat) 3. Skimmed milk (less than 0.5% fat) 4. Don't know 	KHF156
Version B			
15.1	<p>What type of cow's milk do you drink the most?</p> <p><i>This item is only displayed if the option "1-3 glasses monthly," "1 glass weekly," "2-6 glasses weekly," "1 glass daily," "2-3 glasses daily," or "More than 3 glasses daily" is selected in question 15. "How much cow's milk do you drink?"</i></p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 5. Whole milk (at least 3.5% fat) 6. Semi-skimmed milk, including vitamin D enriched semi-skimmed milk or medium milk (0.5-2.0% fat) 7. Skimmed milk (less than 0.5% fat) 8. Don't know 	KHF65

1. Name of original instrument/question:

The original instrument was developed for use in the National Public Health Survey in Norway in 2020 (1). The aim was to capture information about dietary patterns and to capture components covered by the Norwegian food-based dietary guidelines.

2. Description of original scale or selection of items used:

The original questions included around 35 questions asking about the intake of food, beverages and dietary supplements. Of these, 19 questions were used to develop and evaluate a diet index reflecting adherence to the Norwegian Dietary Guidelines, denoted “the Norwegian Dietary Guideline Index” (NDGI) (2).

3. Rationale for choosing the instrument:

The rationale for choosing the instrument is that it is short and the selected items capture sufficient information about participants’ diet to rank individuals according to their dietary quality.

4. Modifications:

The diet questions in this questionnaire include the most important question for calculating the NDGI. In addition, it includes questions about use of fast-food (3) and use of energy drinks (4). These are questions that have been shown to reflect poor diet quality and may be used as indicators of poor diet quality independent of the NDGI (3;4). The answer alternatives in questions about food and drinks in this questionnaire were reduced to fewer categories than in the National Public Health Survey.

References:

1. Abel MH, Totland TH. Kartlegging av kostholdsvaner og kroppsvekt hos voksne i Norge basert på selvrapporing – Resultater fra Den nasjonale folkehelseundersøkelsen 2020 [Rapport 2021]. Oslo: Folkehelseinstituttet; 2021.
2. Totland TH, Øvrebø B, Brantsæter AL, Holvik K, Bere ET, Torheim LE, et al. Development and evaluation of an index assessing adherence to the Norwegian food-based dietary guidelines: the Norwegian Dietary Guideline Index (NDGI). *BMC Nutr* 2024;10(1):94. DOI: 10.1186/s40795-024-00900-7
3. Smith KJ, McNaughton SA, Gall SL, Blizzard L, Dwyer T, Venn AJ. Takeaway food consumption and its associations with diet quality and abdominal obesity: a cross-sectional study of young adults. *Int J Behav Nutr Phys Act* 2009;6:29. DOI: 10.1186/1479-5868-6-29
4. Markon AO, Ding M, Chavarro JE, Wolpert BJ. Demographic and behavioural correlates of energy drink consumption. *Public Health Nutr* 2023;26(7):1424-35. DOI: 10.1017/s1368980022001902

Eating disorder symptoms

Q		Response options	Variable name
21	<p>When you think about the past 4 weeks, how often have you been deliberately trying to limit the amount of food you eat to influence your shape or weight?</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Never/rarely 2. Sometimes 3. Often 4. Very often 	KHF72
22	<p>Over the past 4 weeks, how often have you tried to follow definite rules regarding what you can eat, in order to influence your shape or weight (for example a limited amount of calories)?</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Never/rarely 2. Sometimes 3. Often 4. Very often 	KHF73
23	<p>Over the past 4 weeks, how often have you had a definite fear of losing control over eating?</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Never/rarely 2. Sometimes 3. Often 4. Very often 	KHF74
24	<p>Over the past 4 weeks, has thinking about food, eating or calories made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Never/rarely 2. Sometimes 3. Often 4. Very often 	KHF75
25	<p>Over the past 4 weeks, have you eaten secretly?</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Never/rarely 2. Sometimes 3. Often 4. Very often 	KHF76
26	<p>Over the past 4 weeks, have you vomited on purpose to lose weight or avoid gaining weight?</p>	<ol style="list-style-type: none"> 1. Never/rarely 2. Sometimes 3. Often 5. Very often 	KHF77
27	<p>Over the past 4 weeks, have you used laxatives or other medicine to lose weight or avoid gaining weight?</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Never/rarely 2. Sometimes 3. Often 6. Very often 	KHF78

28	How dissatisfied have you been with your shape (what you see in the mirror)? <i>[Radio buttons]</i>	1. Not at all 2. A little 3. A lot 1. Very much	KHF79
29	How uncomfortable have you felt seeing your own body for example seeing your shape in the mirror, while undressing, taking a bath or shower? <i>[Radio buttons]</i>	1. Not at all 2. A little 3. A lot 4. Very much	KHF80
30	How uncomfortable have you felt about others seeing your shape or figure (for example in communal changing rooms, when swimming or wearing tight clothes)? <i>[Radio buttons]</i>	1. Not at all 2. A little 3. A lot 4. Very much	KHF81
31	How do you consider your own weight? <i>[Radio buttons]</i>	1. Too thin 2. Little too thin 3. Okay 4. Little too heavy 5. Too heavy	KHF82

1. Name of original instrument/question:

Selected questions from the Eating Disorder Examination Questionnaire (EDE-Q)

2. Description of original scale or selection of items used:

The EDE-Q (Fairburn and Beglin, 1994; 2008) is a 22-item self-report version of the Eating Disorder Examination (EDE), the well-established investigator-based interview (Fairburn and Cooper, 1993). The EDE was designed to measure the broad range of the specific psychopathology of eating disorders. The 22 items of EDE-Q comprise 4 subscales assessing Restraint (5 items), Eating Concern (5 items), Shape Concern (8 items), and Weight Concern (5 items) over the previous 28 days.

Psychometric Information: According to Berg, et al. (2012), who systematically reviewed research on the psychometric properties of the EDE-Q, the test–retest correlations ranged from 0.66 to 0.94 for scores on the four subscales. The internal consistency coefficients ranged from 0.70 to 0.93. The EDE-Q has also been shown to demonstrate good criterion-oriented and construct validity.

Base Reference/Primary Citation: Berg KC, Peterson CB, Frazier P, Crow SJ: Psychometric evaluation of the eating disorder examination and eating disorder examination-questionnaire: a systematic review of the literature. *Int J Eat Disord* 2012, 45:428-438.

Fairburn C, Beglin S: Eating Disorder Examination. In *Cognitive Behavior Therapy and Eating Disorders*. Edited by Fairburn C. New York: Guilford Press; 2008:265-308.

Fairburn CG, Cooper Z. The eating disorder examination. In: Fairburn CG, Wilson GT, editors. *Binge Eating: Nature, Assessment, and Treatment*. 12. New York: Guilford Press; 1993. pp. 317-360.

Fairburn CG, Beglin SJ. Assessment of eating disorders: Interview or self-report questionnaire? *Int J Eat Disord*. 1994;16:363–370. Modifications The last three questions were in the original scale rated on a 7-point scale (from ‘no days’ to ‘every day’), instead of the 4-point scale used in MoBa.

3. Rationale for choosing the instrument:

The EDE-Q, together with the interview version (EDE), is widely considered the preeminent eating disorder assessment. This scale was also included in the 14-year data collection (10 of the items) and in the MoBa Young Q6 in MoBa. The subset of EDE-Q items included were selected from the following subscales: Restraint (2 items; Q21–Q22), Eating Concern (3 items; Q23–Q25), Shape Concern (3 items; Q28–Q30), and Weight Concern (1 item; Q31), all referring to the previous 28 days. Behavioral frequency items assessing compensatory behaviors (2 items; Q26–Q27) were also included but are not part of the subscale scores.

4. Modifications:

Modifications: The last three questions were in the original scale rated on a 7-point scale (from ‘no days’ to ‘every day’), instead of the 4-point scale used in MoBa. No revisions have been made.

Binge eating

Q		Response options	Variable name
32	Some people binge eat, that is, eat a very large amount of food in a short period of time. How often have you binged during the past year? [Radio buttons]	1. Never 2. Less than once a month 3. 1-3 times per month 4. Once a week 5. Several times a week 6. Every day 7. Don't know	KHF83
When you overate/binged: <i>The question below are only displayed if the option "Every day", "Several times a week," "1-3 times per month," "Once a week," or "Less than once a month" is selected in question "32. How often have you overeaten in the past year?"</i>			
32.1	<i>Did you feel like you couldn't stop eating even though you wanted to?</i>		KHF84
	<i>Did you eat until you had a stomachache or felt like you might vomit?</i>	1. Never 2. Sometimes 3. Often 4. Always	KHF85
	<i>Did you feel guilty after eating too much?</i>		KHF86

- 1. Name of original instrument/question: The Binge Eating Disorder Screener-7**
- 2. Description of original scale or selection of items used:** The BEDS-7 is a screening questionnaire that is developed to identify individual with binge eating disorder. The 4 items used in MoBa questionnaire are a subscale from the BEDS-7
- 3. Rationale for choosing the instrument:** The items are aligned with diagnostic criteria for binge eating disorder from DSM-5. This instrument is also included in MoBa Young Q6.
- 4. Modifications:**

Eye health

Q		Response options	Variable name
33	<p>Do you wear glasses or contact lenses to correct your vision?</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Yes 2. No, I have never worn glasses or contact lenses 3. No, not now, but I used glasses or contact lenses when I was younger 	KHF87
33.1	<p>What age did you first start to wear glasses or contact lenses?</p> <p><i>The item appears only if the options «Yes» or «No, not now, but I used glasses or contact lenses when I was younger» are selected in question 33. «Do you wear glasses or contact lenses to correct your vision?»</i></p> <p><i>[Numeric field]</i></p>	<p>Numeric field: Min 1, Max 90, integers only</p>	KHF88
	<p><i>[Radio button]</i></p>	<p>Do not remember</p>	KHF89
33.2	<p>Why were you prescribed glasses or contact lenses?</p> <p><i>This item appears only if the options «Yes» or «No, not now, but I used glasses or contact lenses when I was younger» is selected in question 33. «Do you wear glasses or contact lenses to correct your vision?»</i></p> <p><i>[Multiple choices]</i></p>	<p>For short-sightedness (myopia), i.e. for distance viewing such as driving, watching TV/cinema etc.</p> <p>For long-sightedness (hyperopia), i.e. for distance and near, but particularly for near tasks like reading</p> <p>For astigmatism</p> <p>Have had a squint since I was a child (strabismus)</p> <p>Have had poor vision in one eye since I was a child (amblyopia)</p> <p>Other</p>	<p>KHF90</p> <p>KHF91</p> <p>KHF92</p> <p>KHF93</p> <p>KHF94</p> <p>KHF95</p>
33.2.1	<p>Did you wear a patch in front of one eye when you were younger?</p> <p><i>This item appears only if the option «Have had poor vision in one eye since I was a child (amblyopia)» is selected in question</i></p>	<ol style="list-style-type: none"> 1. Yes 2. No 3. Do not know / do not remember 	KHF96

	<p>33.2. « <i>Why were you prescribed glasses or contact lenses?</i> »</p> <p><i>[Radio buttons]</i></p>		
33.2.2	<p>Have you had one or more surgeries to correct your strabismus?</p> <p><i>This item appears only if the option «Have had a squint since I was a child (strabismus)» is selected in question 33.2. «Why were you prescribed glasses or contact lenses?»</i></p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Yes 2. No 3. Do not know / do not remember 	KHF97
33.3	<p>How often do you wear glasses or contact lenses?</p> <p><i>This item appears only if the option «Yes» is selected in question 33. «Do you wear glasses or contact lenses to correct your vision?»</i></p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Almost never 2. Only when reading 3. Only when my eyes are tired 4. Only when looking at something far away 5. All the time 	KHF98
33.4	<p>What was the reason you stopped wearing prescription glasses or contact lenses?</p> <p><i>Please tick one or more boxes.</i></p> <p><i>This item appears only if the option « No, not now, but I used glasses or contact lenses when I was younger» is selected in question 33. «Do you wear glasses or contact lenses to correct your vision?»</i></p> <p><i>[Multiple choices]</i></p>	My vision has changed	KHF99
		Sees equally well with or without glasses or contact lenses	KHF100
		Has undergone refractive surgery (e.g., laser surgery)	KHF101
		Do not want to or do not like using glasses or contact lenses	KHF102
		Cannot afford to buy glasses or contact lenses	KHF103
		Should use them but have postponed buying new ones	KHF104
		Other reason(s)	KHF105
33.5	<p>How old were you when you stopped wearing glasses or contact lenses?</p> <p><i>This item appears only if the option « No, not now, but I used glasses or contact lenses when I was younger» is selected in question</i></p>	Numeric field: Min 1, Max 90, integers only	KHF106

	33. «Do you wear glasses or contact lenses to correct your vision?» [Numeric field]		
	[Radio button]	Do not remember	KHF107
34	Are you limited by vision problems in your daily life? That is, is there anything you cannot do in daily life because you have vision problems? [Radio buttons]	1. Yes 2. No	KHF108

1. Name of original instrument/question:

MoBa specific questions

2. Description of original scale or selection of items used:

Three questions (33, 33.1, and 33.2) were adapted from the UK Biobank Questionnaire on Health and Medical History (Eyesight; <https://www.ukbiobank.ac.uk>), the Avon Longitudinal Study of Parents and Children and the Lifelines study. These items were selected because they align with the objectives of the current study. The wording was translated into Norwegian, and response options were modified to improve clarity for our population.

Additional information about the UK Biobank repository can be found at:

<https://biobank.ndph.ox.ac.uk/showcase/index.cgi> as well as in this paper

Asefa, N. G., Neustaeter, A., Vehof, J., Nolte, I. M., Snieder, H., & Jansonius, N. M. (2023). Development and validation of a questionnaire-based myopia proxy in adults: the LifeLines Cohort Study. *The British journal of ophthalmology*, 107(7), 1035–1042.

<https://doi.org/10.1136/bjophthalmol-2021-319166>

The remaining questions in this section were developed specifically for this study to capture additional information not covered by the original instrument.

3. Rationale for choosing the instrument:

The questions 33, 33.1, and 33.2 were chosen to capture information about the use of prescription glasses or contact lenses, both currently and earlier in life. Specifically, these questions address whether the respondent uses or has used glasses or contact lenses, the age at which they first started wearing them, and the reason for their use. They were chosen because they align with questions from the UK Biobank Questionnaire on Health and Medical History.

The questions 33.2.1 and 33.2.2 were included to capture information about treatment of amblyopia and stereopsis, while questions 33.3, 33.4, 33.5 provide additional details regarding the use of glasses or contact lenses. Question 34 assess whether vision problems affect daily life.

4. Modifications:

No revisions have been made.

Unpaid care provision

Q		Response options	Variable name
The next questions are about providing help to others due to illness, disability, or old age. The person receiving help may be a parent, child, sibling, spouse/partner, or someone else.			
35	Do you regularly provide unpaid practical help or supervision to people who are ill, have reduced functional ability, or are elderly? We are thinking of help with housework, personal care, or supervision. <i>[Radio buttons]</i>	<ol style="list-style-type: none"> 1. Yes, to one person 2. Yes, to two or more persons 3. No 	KHF109
35.1	Does the person (or persons) you help live in the same household as you? <i>Check one or two boxes.</i> <i>This item is only shown if “Yes, to one person” or “Yes, to two or more persons” is selected in question 35: Do you regularly provide unpaid practical help or supervision to people who are ill, have reduced functional ability, or are elderly? We are thinking of help with housework, personal care, or supervision.</i> <i>[Multiple choice]</i>	In the household	KHF110
		Outside the household	KHF111
35.2	What is your relationship to this person/these persons? <i>Check one or more boxes.</i>	Own child / stepchild / foster child	KHF112
		Spouse/cohabitant/partner	KHF113
		Mother/father/parents/parents-in-law	KHF114

	<p><i>This item is only shown if “Yes, to one person” or “Yes, to two or more persons” is selected in question 35: Do you regularly provide unpaid practical help or supervision to people who are ill, have reduced functional ability, or are elderly? We are thinking of help with housework, personal care, or supervision.</i></p> <p><i>[Multiple choice]</i></p>	<p>Another relative (grandparent, sibling, aunt, uncle, cousin, etc.)</p>	KHF115
		<p>Someone outside the family (friend, neighbour, colleague, etc.)</p>	KHF116
35.3	<p>What is the reason the person(s) receives your help or supervision?</p> <p><i>Check one or more boxes.</i></p> <p><i>This item is only shown if “Yes, to one person” or “Yes, to two or more persons” is selected in question 35: Do you regularly provide unpaid practical help or supervision to people who are ill, have reduced functional ability, or are elderly? We are thinking of help with housework, personal care, or supervision.</i></p> <p><i>[Multiple choice]</i></p>	Alzheimer’s disease or other dementia	KHF117
		Physical illness	KHF118
		Mental health problems/disorder	KHF119
		Reduced functional ability	KHF120
		Old age	KHF121
		Substance abuse (alcohol, drugs)	KHF122
		Other	KHF123
35.3.1	<p>How many relatives* are there in total for the person(s) with Alzheimer’s disease or other dementia?</p> <p><i>*By relatives we mean other people in the patient’s network who provide unpaid practical help, supervision or support. Relatives can, for example, be spouse, children, grandchildren, friends and neighbours.</i></p> <p><i>This item is only shown if “Alzheimer’s disease or other dementia” is selected in question 35.3: What is the reason the person(s) receives your help or supervision?</i></p> <p><i>[Dropdown]</i></p>	<p>1. 1</p> <p>2. 2</p> <p>3. 3</p> <p>4. 4</p> <p>5. 5</p> <p>6. 6</p> <p>7. 7</p> <p>8. 8</p> <p>9. 9</p> <p>10. 10</p> <p>11. 11</p> <p>12. 12</p> <p>13. 13</p> <p>14. 14</p> <p>15. 15</p> <p>16. 16</p> <p>17. 17</p> <p>18. 18</p> <p>19. 19</p> <p>20. 20 or more</p>	KHF124
35.3.2	<p>What is your relationship to the person(s) with Alzheimer’s disease or other dementia?</p>	Spouse	KHF125
		Cohabitant	KHF126
		Child	KHF127

	<i>This item is only shown if “Alzheimer’s disease or other dementia” is selected in question 35.3: What is the reason the person(s) receives your help or supervision?</i>	Sibling	KHF128
		Other family	KHF129
		Friend	KHF130
		Neighbour	KHF131
	<i>[Multiple choice]</i>	Other	KHF132
35.4	In the past four weeks, have you provided any of the following? <i>Check one or more boxes.</i> <i>This item is only shown if “Yes, to one person” or “Yes, to two or more persons” is selected in question 35: Do you regularly provide unpaid practical help or supervision to people who are ill, have reduced functional ability, or are elderly? We are thinking of help with housework, personal care, or supervision.</i>	Help with grocery shopping	KHF133
		Help with cleaning the home	KHF134
		Transport to and from shops, doctor’s office, etc.	KHF135
		Practical help with paying bills, rent, etc.	KHF136
		Other practical help	KHF137
		Supervision	KHF138
		Personal care/nursing	KHF139
		Advice and help in contact with home-care services	KHF140
	<i>[Multiple choice]</i>	Other	KHF141
35.5	How often do you provide such help? <i>This item is only shown if “Yes, to one person” or “Yes, to two or more persons” is selected in question 35: Do you regularly provide unpaid practical help or supervision to people who are ill, have reduced functional ability, or are elderly? We are thinking of help with housework, personal care, or supervision.</i>		
	<i>[Radio buttons]</i>	1. Daily 2. Several times a week 3. One or more times a month 4. Less often than monthly	KHF142
Version A			
35.6	Who has the main responsibility for providing help? <i>This item is only shown if “Yes, to one person” or “Yes, to two or more persons” is selected in question 35: Do you regularly provide unpaid practical help or supervision to people who are ill, have reduced functional ability, or are elderly? We are thinking of help with housework, personal care, or supervision.</i>	Me	KHF150
		My spouse/cohabitant/partner	KHF151
		My brother	KHF152
		My sister	KHF153
		Share the responsibility equally with siblings	KHF154
	<i>[Multiple choice]</i>	None of the above	KHF155
Version B			

35.6	<p>Who has the main responsibility for providing help?</p> <p><i>This item is only shown if “Yes, to one person” or “Yes, to two or more persons” is selected in question 35: Do you regularly provide unpaid practical help or supervision to people who are ill, have reduced functional ability, or are elderly? We are thinking of help with housework, personal care, or supervision.</i></p> <p>[Radio buttons]</p>	<ol style="list-style-type: none"> 1. Me 2. My spouse/cohabitant/partner 3. My brother 4. My sister 5. Share the responsibility equally with siblings 6. None of the above 	KHF143
------	---	--	--------

1. Name of original instrument/question:

Name for the care provision part: Unpaid care provision (Ulønnet omsorgsarbeid).

The survey question is meant to identify care provision activities, including type of care, who provides care and relationship to the care provider.

The original instruments are used in the county level surveys (Fylkeshelseundersøkelsen – FHUS). Data have already been collected using the same batteries and scales in FHUS (including Viken and Troms). See for Viken:

<https://www.fhi.no/contentassets/5da10fb844d44faf8e3e84ebf979e8d0/folkeshelseundersokelsen-i-viken-bokmal-nettskjema.pdf>

The survey items have also been included in Tromsø 8 (ongoing)

<https://uit.no/research/tromsundersokelsen>

2. Description of original scale or selection of items used:

We use the same question scales as in the existing surveys in FHUS and Tromsø population surveys. We did add dementia as one of the possible response – as a reason for why one receives care.

Selected articles using the FHUS caregiving questions:

- Methi, F., Nes, RB., Skirbekk, V., & Hansen, T. (2024). “The double-edged sword of becoming a caregiver: dynamic impact on four dimensions of well-being in Norway.” *BMC Psychology* 12, 120. <https://doi.org/10.1186/s40359-024-01623-x>
- Hansen T., Hynek, K., McMunn, A., Nes, RB., Skirbekk, V., Vollrath, M., & Methi, F. (2023). “Emerging costs in a “hidden” workforce: The longitudinal psychosocial effects of caregiving during the COVID-19 pandemic among Norwegian adults.” *Scandinavian Journal of Psychology*, 65(3), 371-380. <https://doi.org/10.1111/sjop.12986>

• Hynek, K., Gotehus, A., Methi, F., Nes, R.B., Skirbekk, V., & Hansen, T. (2023). “Caregiving + Migrant Background = Double Jeopardy? Associations between Caregiving and Physical and Psychological Health According to Migrant Backgrounds in Norway.” *International Journal of Environmental Research and Public Health*. 10.3390/ijerph20105800

3. Rationale for choosing the instrument:

It is important to learn about care responsibilities for family members and others, including individuals with mobility impairments, disabilities, or dementia. A substantial share of total care provision occurs informally—often outside formal health and social-care systems—and may have profound implications for the health, well-being, and daily functioning of both care recipients and caregivers. Understanding these dynamics is essential for illuminating how people allocate time across market work, household production, and care, and for assessing how population ageing reshapes social roles, labour-market behaviour, and long-term economic trajectories.

The anticipated growth in demand for intergenerational care, especially the increasing expectation that adult children will assume responsibility for ageing parents, raises a series of pressing empirical and policy questions. It will be crucial to investigate how caregiving obligations influence caregivers’ physical and mental health, their own emerging care needs, patterns of sickness absence, reliance on health-care services, and overall quality of life. Moreover, these effects are likely to vary depending on whether eldercare duties occur in isolation or in combination with paid employment, childcare responsibilities, or other forms of competing time demands.

Future research should also examine the structural, social, and institutional factors that either buffer or intensify the strain of caregiving. These may include workplace flexibility, access to formal support services, the availability of long-term care infrastructure, income security, and the broader policy environment. A nuanced understanding of these mechanisms is essential for designing interventions that sustain caregivers’ well-being, safeguard labour-market attachment, and ensure equitable and high-quality care for an ageing population.

4. Modifications:

The survey instruments are based on two batteries on care provision used in the Norwegian County Surveys (FHUS) and Tromsø survey. We did add an item on dementia as one of the response categories.

They align closely with earlier NorLAG items on care needs (e.g., "Hvis mor har behov for hjelp" - <https://norlag.nsd.no/pdf/Runde3telefonkjema.pdf>) and related care provision measures from large scale international harmonized ageing surveys such as SHARE (survey of health and retirement in Europe) and HRS (Health and Retirement Survey).

Quality of life

36	<p>Below is a scale from 0 to 10, where 0 is the worst possible life for you and 10 is the best possible life. Where would you place yourself on this scale at the present time?</p> <p><i>[Dropdown]</i></p>	<ol style="list-style-type: none"> 1. 0 – worst possible life 2. 1 3. 2 4. 3 5. 4 6. 5 7. 6 8. 7 9. 8 10. 9 11. 10 – best possible life 	KHF144
-----------	---	--	--------

1. Name of original instrument/question:

The Cantril Self-Anchoring Striving Scale (Cantril ladder)

2. Description of original instrument:

The Cantril Scale is a simple visual adaptable scale used to assess general life satisfaction (Cantril 1965). The original scale consists of the following: Please imagine a ladder with steps numbered from zero at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time? (ladder-present). On which step do you think you will stand about five years from now? (ladder-future).

An adapted version for use among adolescents in the Health Behaviour in School-aged Children (HBSC) surveys has been validated in adolescent populations (Levin & Currie, 2014). In MoBa the adapted version of the Cantril scale was used to measure life satisfaction in the present.

Psychometric Information: The Cantril Scale has shown good reliability in the Health Behaviour in School-aged Children (HBSC) surveys of adolescent samples, and showed good convergent validity with other emotional well-being measures, perceived health and subjective health (Levin & Currie, 2014). Data from the HBSC 2010 survey revealed that the mean Cantril Scale scores for all countries was 7.58 and that 28 of 31 countries had a mean value between 7 and 8 (Looze, Huijts, Stevens, Torsheim, & Vollebergh, 2018). Most HBSC studies have used a cut-off point of 0–5 versus 6–10 to categorise low vs. high score. Others applied scores of 9–10 as a distinct measure of high life satisfaction versus low and medium scores of 0–8 (Due et al. 2019).

Base Reference/Primary Citation:

Cantril, H. (1965). *The pattern of human concerns*. New Brunswick, NJ: Rutgers University Press.

Diener E, Emmons RA, Larsen RJ, et al. The Satisfaction With Life Scale. *J Pers Assess* 1985;49(1):71-5. doi: 10.1207/s15327752jpa4901_13

Levin, K.A., & Currie, C. (2014). Reliability and validity of adapted version of the Cantril Ladder for use with adolescent sample. *Social Indicator Research*, 119, 1047–63. 15

Gallup (2009). *World Poll Methodology*. Technical Report. Washington, DC. Due, P., Eriksson, C., Torsheim, T., Potrebny, T., Välimaa, R., Suominen, S., ... & Damgaard, M. T. (2019). Trends in high life satisfaction among adolescents in five Nordic countries 2002–2014. *Nordisk välfärdsforskning| Nordic Welfare Research*, 4(02), 54-66.

3. Rationale for choosing the questions:

Life satisfaction is an important indicator when assessing positive mental health aspects in populations, including among adolescents. The Cantril scale is a widely used measure of life satisfaction. It is used in Gallup surveys across the globe as well as for adolescents in the Health Behaviour in School-aged Children (HBSC) survey in 42 countries/regions including in Norway. The measure was chosen in MoBa as an easy-to-use measure of life satisfaction for adolescents.

The scale has been included in several MoBa data collections

4. Modifications:

No changes have been made

Height, Weight and handedness

37	<p>How tall are you?</p> <p><i>Please state in centimetres.</i></p> <p><i>[Numeric field]</i></p>	<p>Min: 50, max: 250. Whole numbers only</p>	KHF145
38	<p>How much do you weigh?</p> <p><i>Please state in whole kilograms.</i></p> <p><i>[Numeric field]</i></p>	<p>Min: 20, max: 500. Whole numbers only</p>	KHF146
39	<p>Think back to when you were 10 years old. Compared to the average, would you describe yourself as:</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Thinner 2. Heavier 3. About average 4. Don't know 5. Prefer not to answer 	KHF147
40	<p>Which hand do you prefer to use in everyday life?</p> <p><i>[Radio buttons]</i></p>	<ol style="list-style-type: none"> 1. Right 2. Left 3. No preference 	KHF148

1. Name of original instrument/question:

Single questions selected for MoBa.