# Questions documentation Youth Dietary Questionnaire (Q-youth diet) Child 13-15 years

The Norwegian Mother and Child Cohort Study (MoBa)

Child questionnaire

by Kristine Vejrup

This document describing the instruments used to construct the questionnaire has not been finally quality controlled. The document may contain some minor inaccuracy and will be subjected to revision. If you have any comments that may improve this document contact mobaadm@fhi.no

Version	Date	Performed by	Description
1.0	Dec. 2020	Kristine Vejrup	
1.1	22.06.2022	Turid S. Solberg	Updated with information about version HBN and HNN

# LIST OF CONTENT

Instrument	3
Model structure of what is presented per instrument/section	
2-3. Birth year and gender	
4-39. Beverage	
40-44. Yoghurt – dairy products	
45-49. Breakfast cereals	
50-57. Bread and crisp bread	7
58-75. Cheese/meat cold cuts/fish/spreads	7
76-103. Main dish for dinner	
104 – 118 Side dish for dinner	9
119 - 145. Fruit and vegetables	10
146-151. Organic food and drinks	
152-164. Cake, desserts and sweets	11
165-173. Snacks	12
174 – 180. Meal pattern	12
181 - 189. Supplements	13
190. Participate in cooking at home	
191 - 196. Food allergies	14
197 - 198. Sleep	14
199 - 208. Physical activity and after school activities	15
209 - 212. Time in front of screen	
213 - 214. Height and weight	17
References	17

#### **Instrument**

This is the food frequency questionnaire (FFQ) developed to monitor the youths' food intake at age 13-15 years. All participants answered electronically.

The development of the Q-youth questionnaire was initiated in 2010 and in collaboration with the Danish National Birth Cohort (DNBC) in order to achieve comparable questionnaires. Both cohorts aimed for web-based questionnaires and the starting point was a short questionnaire for adolescents developed in the US Growing Up Today Study (GUTS) <sup>(1)</sup>.

A first version of the MoBa questionnaire was tested for reproducibility and validity in 13-14-year-old students in four different schools in the southern part of Norway. For reproducibility, 58 students filled out the FFQ four weeks apart, and for validity, 93 students filled out the FFQ and completed two 24-hour recalls and donated a blood sample for analysis of fatty acids and vitamin D. The test-retest reproducibility was considered good, while the relative validity was considered OK for nutrients but poor for the biomarkers <sup>(2)</sup>. A validation of the DNBC questionnaire included 124 adolescents who after answering the FFQ complete three telephone-based 24HRs; administered 4 weeks apart. No biomarkers were included. The relative validity was moderate <sup>(3)</sup>. The MoBa dietary questionnaire for youth was modified and a pilot was sent to participants in 2017. From 2018 version H of the questionnaire was sent to participants and the survey is ongoing per June 2022.

For calculating nutrient intakes from reported intake of food, frequencies are converted into food amounts using standard portion sizes for girls and boys. FoodCalc<sup>(4)</sup> and the Norwegian Food Composition Table (version downloaded from <a href="www.matvaretabellen.no">www.matvaretabellen.no</a> in 2018) are used to calculate daily intakes of energy, nutrients and food. Intake of nutrient from reported use of dietary supplements, including supplements reported as text, has not been estimated. For predefined supplements, this can be done by multiplying the reported frequency of use with nutrient contents in a standard dose.

## **NOTE:**

The dietary questionnaire for youth has four versions (P, H, HBM and HNN). This instrument documentation is based on version H. There are no changes between version H, HBM and HNN. HBM and HNN refers to a "bokmål" and a "nynorsk" version of the questionnaire. There are very few changes between the version H and version P (pilot).

## Model structure of what is presented per instrument/section

# 1. Name of original instrument/question:

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

## 2. Description of original questions:

Describe original scale or selection of items used. Note: In the dietary questionnaire for youth only single questions have been used.

## 3. Rationale for choosing the questions:

What is it meant to measure and IF RELEVANT: Why this is a good measure.

#### 4. Modifications:

Describe modifications during the study from one version to another. Write if omitted or added from one version to another.

# 2-3. Birth year and gender

1. Name of original questions: 2 questions about the participant

Q		Response options	Variable name
2	What year were you born?		·
		1) 1999 2) 2000 3) 2001 4) 2002 5) 2003 6) 2004 7) 2005 8) 2006 9) 2007 10) 2008 11) 2009	QDY_2
3	Are you a boy or a girl?		<u>'</u>
		1) Boy 2) Girl	QDY_3

- 2. Description of original questions: MoBa specific single questions
- 3. Rationale for choosing the questions: To determine birth year and gender of participant.
- 4. Revision during the data collection period: No revisions have been made.

# 4-39. Beverage

1. Name of original questions: questions about beverage consumption

Q		Response Options	Variable name
4-31		last month? Think about what you usually d the weekend. 1 glass/cup = 2-2,5 dl	rink to all meals and between
	Dairy		
	4. Full-fat milk		QDY_4
	5. Low-fat milk		QDY_5
	6. Extra low-fat milk	1) 0 glass per month 2) 1-3 glass per month	QDY_6
	7. Skimmed milk	3) 1 glass per week	QDY_7
	8. Kefir/buttermilk	4) 2-6 glass per week	QDY_8
	9. Chocolate milk, strawberry milk etc.	5) 1 glass per day 6) 2-3 glass per day 7) More than 3 glass per day	QDY_9
	10. Cultura/Biola natural	- 7) More triair 3 glass per day	QDY_10
	11. Cultura/Biola with taste		QDY_11
	Juice/soft drink/water		·
	12. Soya milk, rice or oat milk etc.		QDY_12
	13.Tap water or bottled water		QDY_13
	14. Orange juice		QDY_14
	15. Apple juice	1) 0 glass per month	QDY_15
	16. Other fruit juice and nectar	2) 1-3 glass per month	QDY_16
	17. Juicesoda (Noisy etc.)	3) 1 glass per week 4) 2-6 glass per week	QDY_17
	18. Smoothie	5) 1 glass per day	QDY_18
	19. Fruit syrup, ice tea, slush with sugar	<ul><li>6) 2-3 glass per day</li><li>7) More than 3 glass per day</li></ul>	QDY_19
	20. Fruit syrup, ice tea, slush with artificial sweetener		QDY_20
	21. Soft drinks with sugar		QDY_21

	22. Soft drinks with artificial sweetener		QDY_22		
	23. Sports drinks (YT, Power Aid etc.)	_	QDY_23		
	24. Energy drinks (Red bull, Battery etc.)		QDY_24		
	Coffee/tea				
	25. Coffee without milk		QDY_25		
	26. Coffee with milk, ice coffee	1) 0 glass per month	QDY_26		
	27. Black tea	2) 1-3 glass per month	QDY_27		
		3) 1 glass per week	_		
	28. Tea with milk	4) 2-6 glass per week 5) 1 glass per day	QDY_28		
	29. Fruit tea	6) 2-3 glass per day	QDY_29		
	30. Herbal tea	7) More than 3 glass per day	QDY_30		
	31. Green tea		QDY_31		
	d artificial sweetener				
32	Did you use sugar in tea/coffee th				
		1) yes 2) no	QDY_32		
33	How many teaspoons per cup				
	тем ими у семерение рег евр	1) 1/2	QDY_33		
		2) 1	4255		
		3) 2			
		4) 3   5) 4			
		6) 5			
		7) 6			
		8) More than 6			
34	Did you use artificial sweetener in	n coffee/tea the last month			
		1) yes 2) no	QDY_34		
	Alcoholic drinks				
35	Have you ever been drinking alco	phol (more than just tasting a sip)?			
Version H,		1) yes	QDY_35		
HBM, HNN		2) no			
36	What kind of alcoholic drink have	you had the last month?			
	1) Beer		QDY_36_1		
Version H, HBM, HNN	2) Cider, alcopops		QDY_36_2		
	3) Wine		QDY_36_3		
37	How many units (glass/box/bottle	e) of beer have you had the last month?			
		1) 1-3	QDY_37		
Version H, HBM, HNN		2) 4-7			
		3) more than 8			
38	How many units (glass/box/bottle	e) of cider/alkopops have you had the last month?			
Version H,		1) 1-3	QDY_38		
HBM, HNN		2) 4-7 3) more than 8			
39	How many glasses of wine have	,			
	1	1) 1-3	QDY_39		
Version H,		2) 4-7	QD1_39		
HBM, HNN		3) more than 8			
P35-P37	Have you had any of the following	g alcoholic drinks the last month?			
	P35) Beer	1) 0 glass/boxes/bottles per month	QDY_P_35		
	P36) Cider, alcopops	2) 1-3 glass/boxes/bottles per month	QDY P 36		
P (pilot)	P36) Cider, alcopops P37) Wine	3) 1 glass/box/bottle per week	QDY_P_36 QDY_P_37		
P (pilot)	P36) Cider, alcopops P37) Wine		QDY_P_36 QDY_P_37		

2. Description of original questions: MoBa specific single questions

# 3. Rationale for choosing the questions:

These questions were developed to get information about youth's beverage consumption.

# 4. Revision during the data collection period:

Revisions have been made to items related to alcoholic drinks. Items 35-36 are specific to version H, HBM, HNN. Revision have been made to the response categories for items 37-39: 5 categories in P (pilot) and 3 categories in version H, HBM, HNN.

## 40-44. Yoghurt – dairy products

1. Name of original questions: questions about intake of yoghurt and dairy products

Q		Response Options	Variable name
40-44	<b>Did you eat the following food items the last month?</b> Think about all meals and snacks both in the weekdays an in the weekend.		
	40. Yoghurt natural, greek yoghurt etc.	1) Not eaten	QDY_40
	41. Fruit yoghurt	2) 1-3 box per month	QDY_41
	42 Biola, Activia yogurt (with	3) 1 box per week	QDY_42
	probiotics)	4) 2-6 box per week	
	43. Go-morgen yogurt	5) 1 box per day	QDY_43
	44. Skyr, Cottage cheese	6) More than 1 box per day	QDY_44

2. Description of original questions: MoBa specific single questions

#### 3. Rationale for choosing the questions:

These questions are developed to get information about youth's intake of yoghurt and dairy products.

**4. Revision during the data collection period:** No revisions have been made.

#### 45-49. Breakfast cereals

1. Name of original questions: questions about intake of breakfast cereals

Q		Response Options	Variable name
45-49	Did you eat the following food items the last month?		
	45. Corn Flakes, Havrefras, Special-K,	1) Not eaten	QDY_45
	Havreloops, Cheerios, etc.	2) 1-3 portions per month	
	46. Coco pops, Honnikorn, etc.	3) 1 portion per week	QDY_46
	47. Oatmeal, oat porridge	4) 2-6 portions per week	QDY_47
	48. Muesli, mixed cereal	5) 1 portion per day	QDY_48
	49. Other type of porridge	6) more than 1 portion per day	QDY_49

2. Description of original questions: MoBa specific single questions

## 3. Rationale for choosing the questions:

These questions are developed to get information about youths' intake of cereals.

# 50-57. Bread and crisp bread

1. Name of original questions: questions about intake of bread and butter/margarine/mayonnaise

Q		Response Options	Variable name
50-55	How often did you eat the following type of bread the last month?		
	50. Wholemeal bread (Kneipp bread,	1) Not eaten	QDY_50
	medium coarse)	2) 1-4 slices per month	
	51. Coarse bread	3) 2-6 slices per week	QDY_51
	52. White bread	4) 1 slice per day	QDY_52
	53. Crispbread	5) 2-3 slices per day	QDY_53
	54.Polar bread (fine/coarse)	6) 4-5 slices per day	QDY_54
	55. Rolls, baguettes	7) more than 6 slices per day	QDY_55
56	How often did you use butter/margar	ine on sandwiches the last month?	
		1) seldom/never 2) sometimes 3) often 4) always	QDY_56
57	How often did you use mayonnaise of	n sandwiches the last month?	
		1) seldom/never 2) sometimes 3) often 4) always	QDY_57

- 2. Description of original questions: MoBa specific single questions
- 3. Rationale for choosing the questions:

This is a measure of daily intake of bread and butter/margarine and mayonnaise used on bread.

4. Revision during the data collection period: No revisions have been made.

# 58-75. Cheese/meat cold cuts/fish/spreads

1. Name of original questions: questions about intake of cheese, meat cold cuts, fish and other spreads

Q		Response Options	Variable name
58-75	How many sandwiches/rolls/crisp breathink about all meals and snacks both in	ads etc. have you eaten with the following food items the weekdays and in the weekend.	the last month?
	58. Cold cuts of ham, roast beef, saddle of pork etc.		QDY_58
	59. Liver paste		QDY_59
	60. Salami, Swedish sausage etc.		QDY_60
	61. Cold cuts of turkey, chicken		QDY_61
	62. Yellow cheese (Norvegia, Jarlsberg etc.)		QDY_62
	63. Brown cheese, Prim		QDY_63
	64. Cheese spread (cheese with ham spread, cheese on tube etc.)	1) Not eaten 2) 1-4 slices per month	QDY_64
	65. Spread with mayonnaise (Italian etc.)	4) 1 slice per day	QDY_65
	66. Egg on slice of bread		QDY_66
	67. Caviar spread		QDY_67
	68. Fish spread (mackerel/sardine in tomato sauce etc.)	7) more than 6 slices per day	QDY_68
	69. Fruit (banana, apple etc.)		QDY_69
	70. Vegetable (tomato, cucumber etc.)		QDY_70
	71. Peanut butter		QDY_71
	72.Chocolate or nut spread		QDY_72
	73. Sweet spread (Hapå, Banos)		QDY_73
	74. Jam		QDY_74
	75. Honey	2) 1-4 slices per month 3) 2-6 slices per week	QDY_75

- 2. Description of original questions: MoBa specific single questions
- 3. Rationale for choosing the questions:

This is a measurement of intake of cheese, meat cold cuts, fish and other spreads.

4. Revision during the data collection period: No revisions have been made.

# 76-103. Main dish for dinner

# 1. Name of original questions: questions about dinner

		Response Options	Variable name	
6-	How often have you eaten the following n	nain dish as dinner the last month?		
01				
	Hot meals with meat		ODV 76	
	76. Minced meat patties, meat balls 77. Hamburger	_	QDY_76 QDY_77	
		1) Not eaten		
	78. Sausage	2) 1 time per month	QDY_78	
	79. Taco	3) 2-3 times per month	QDY_79	
	80. Pita bread with filling	4) 1 time per week	QDY_80	
	81. Pizza	5) 2-3 times per week	QDY_81	
	82. Casserole dish (risotto, beef stew etc.)	6) 4-6 times per week	QDY_82	
	83. Pasta with meat (spaghetti bolognaise, lasagna etc.)	7) 1 time per day or more	QDY_83	
	84. Pork, beef or lamb meat (steak, roast, chop etc.)		QDY_84	
	85. Venison meat (roast of elk, deer, reindeer etc.)		QDY_85	
	Hot meals with poultry		<u> </u>	
	86. Chicken or turkey (fillet, barbeque,	1) Not eaten	QDY_86	
	chicken legs etc.)	2) 1 time per month	-	
	87. Chicken burger, nuggets	3) 2-3 times per month	QDY_87	
		4) 1 time per week	-	
		5) 2-3 times per week		
		6) 4-6 times per week		
		7) 1 time per day or more		
	Pie		1051/10	
	88. Pie with meat or vegetables	1) Not eaten	QDY_88	
		2) 1 time per month		
		3) 2-3 times per month		
		4) 1 time per week		
		5) 2-3 times per week		
		6) 4-6 times per week		
		7) 1 time per day or more		
	Seafood			
	89. Salmon, trout, mackerel or other fatty	1) Not eaten	QDY_89	
	fish	2) 1 time per month		
	90. Cod, saithe or other lean fish	3) 2-3 times per month	QDY_90	
	91. Fish soup	4) 1 time per week	QDY_91	
	92. Shrimp, shellfish	5) 2-3 times per week	QDY_92	
	93. Fish cakes, fish sticks or other fish	6) 4-6 times per week	QDY_93	
	products	7) 1 time per day or more	_	
	Other hot meals		·	
	94. Dishes with beans/lentils/peas	1) Not eaten	QDY_94	
	95. Soup (tomato soup, vegetable soup)	2) 1 time per month	QDY_95	
	96. Eggs; fried, scrambled, omelet	3) 2-3 times per month	QDY_96	
	97. Pancakes	4) 1 time per week	QDY_97	
	98. Rice porridge	5) 2-3 times per week	QDY_98	
	99. Other porridge	6) 4-6 times per week	QDY_99	
		7) 1 time per day or more		

100- 101	If you had porridge/pancakes the last month how many teaspoons of sugar or jam did you use on the porridge?		
	100. Porridge	1) None	QDY_100
		2) 1-3	
	101. Pancakes	3) 4-5	QDY_101
		4) More than 6	
102	Did you eat anything else for dinr	er this month?	
		1)Yes	QDY_102
		2) No	_
103	What other dish did you eat for dinner?		
		Text variable	QDY_103

- 2. Description of original questions: MoBa specific single questions
- **3.** Rationale for choosing the questions: These questions are developed to get information about youth's hot meal for dinner.
- 4. Revision during the data collection period: No revisions have been made.

# 104 - 118 Side dish for dinner

1. Name of original questions: questions about side dishes

Q		Response Options	Variable name	
104- 116	How often have you eaten the following side dishes for dinner the last month?			
	Side dish			
	104. Potatoes (boiled, baked, mashed)	1) Not eaten	QDY_104	
	105. French fries	2) 1 time per month	QDY_105	
	106. Potatoes au gratin, potato salad	3) 2-3 times per month	QDY_106	
	107. Fried potatoes	4) 1 time per week	QDY_107	
	108. Rice	5) 2-3 times per week	QDY_108	
	109. Noodles, pasta, spaghetti	6) 4-6 times per week	QDY_109	
	110. Bread, focaccia etc.	7) 1 time per day or more	QDY_110	
	Gravy/dressing			
	111. Warm gravy	1) Not eaten	QDY_111	
	112. Sour cream, crème fraiche	2) 1 time per month	QDY_112	
	113. Dressing	3) 2-3 times per month	QDY_113	
	114. Ketchup	4) 1 time per week	QDY_114	
	115. Mustard	5) 2-3 times per week	QDY_115	
	116. Mayonnaise, rémoulade	6) 4-6 times per week 7) 1 time per day or more	QDY_116	
117	Did you eat any other side dish for di			
		1)Yes	QDY_117	
		2) No		
118	What other side dish did you eat for d	inner the last month?		
		Text variable	QDY_118	

- 2. Description of original questions: MoBa specific single questions
- **3.** Rationale for choosing the questions: These questions are developed to get information about youth's sides dishes for dinner.
- **4. Revision during the data collection period:** No revisions have been made.

# 119 - 145. Fruit and vegetables

# 1. Name of original questions: questions about intake of fruit and vegetables

Q		Response Options	Variable name	
119- 144				
	Fresh fruit			
	119. Apple (1 piece)		QDY_119	
	120. Pear (1 piece)		QDY_120	
	121. Banana (1 piece)		QDY_121	
	122. Orange or 2 clementines	1) Not eaten	QDY_122	
	123. Peach, nectarine (1 piece)	2) 1 time per month	QDY_123	
	124. Plum (1 piece)	3) 2-3 times per month 4) 1 time per week	QDY_124	
	125. Melon (1 slice)	5) 2-3 times per week	QDY_125	
	126. Kiwi (1 piece)	6) 4-6 times per week	QDY_126	
	127. Pineapple (1 slice), mango (1 bit)	7) 1 time per day or more	QDY_127	
	128. Berries, fresh or frozen (1 portion)		QDY_128	
	129. Grapes (1 handful)	_	QDY_129	
	130. Raisins (1/2 handful)	_	QDY_130	
	131. Other dried fruits (1/2 handful)		QDY_131	
	Vegetables	_	T	
	132. Broccoli		QDY_132	
	133. Cauliflower		QDY_133	
	134. Onion, garlic, leek		QDY_134	
	135. Avocado (1/2 piece)	1) Not eaten	QDY_135	
	136. Corn (1/2 cob = 2 tbsp)	2) 1 time per month	QDY_136	
	137. Peas, snow peas	3) 2-3 times per month	QDY_137	
	138. Mixed salad (1 portion)	4) 1 time per week	QDY_138	
	139. Cooked spinach	5) 2-3 times per week 6) 4-6 times per week	QDY_139	
	140. Pepper (1/4)	7) 1 time per day or more	QDY_140	
	141. Carrots (1 piece)	1	QDY_141	
	142. Cucumber (about 4-5 cm)	1	QDY_142	
	143. Tomato (1 piece)		QDY_143	
	144. Other vegetables		QDY_144	
145	If you crossed out other vegetables, v			
		Text variable	QDY_145	

# 2. Description of original questions: MoBa specific single questions

# 3. Rationale for choosing the questions:

These questions are developed to get information about youth's intake of vegetables.

# 146-151. Organic food and drinks

1. Name of original questions: questions about intake of organic food and drinks.

Q		Response options	Variable name
146-151	How often do you eat/drink the following organic	food and drinks?	
	146. Milk, milk products and cheese	1- Seldom/never	QDY_146
	147. Bread and cereal products (flour, muesli etc.)		QDY_147
Version H,	148. Egg	2- Sometimes	QDY_148
HBM, HNN	149. Vegetables	3- Often	QDY_149
	150. Fruit	4- Mostly	QDY_150
	151. Meat		QDY_151

- 2. Description of original questions: MoBa specific single questions
- **3.** Rationale for choosing the questions: This is a measure of youth's intake of ecological food.
- **4. Revision during the data collection period:** Questions are specific to version H, HBM, HNN.

## 152-164. Cake, desserts and sweets

1. Name of original questions: questions about intake of cake, desserts and sweets

Q		Response Options	Variable name
152- 164	How often have you eaten the following	ng the last month?	
	152. Cake (cream layer cake, brownie chocolate cake) (1 piece)		QDY_152
	153. Cookies, sweet biscuits (1 piece)		QDY_153
	154. Danish pastry (1 piece)		QDY_154
	155. Buns (cinnamon buns, Norwegian custard buns ("skolebrød"), currant buns etc.) (1 piece)	1) Not eaten 2) 1 time per month	QDY_155
	156. Müslie bar	3) 2-3 times per month	QDY_156
	157. Ice cream, yogurt ice cream (1 piece)	4) 1 time per week 5) 2-3 times per week	QDY_157
	158. Water ice stick, sorbet (1 piece)	6) 4-6 times per week	QDY_158
	159. Pudding and mousse	7) 1 time per day	QDY_159
	160. Creamed rice or "rislunsj" (Norwegian rice pudding)	8) 2 times per day or more	QDY_160
	161. Gelo		QDY_161
	162. Canned fruit		QDY_162
	163. Cream, whipped cream		QDY_163
	164. Vanilla sauce		QDY_164

- 2. Description of original questions: MoBa specific single questions
- **3.** Rationale for choosing the questions: These questions are developed to get information about youth's intake of desserts, ice cream, cakes and sweets.
- **4. Revision during the data collection period:** No revisions have been made.

# 165-173. Snacks

# 1. Name of original questions: questions about intake of snacks

Q		Response Options	Variable name		
165- 173					
	165. Crisps, potato chips, cheese doodles		QDY_165		
	166. Tortilla chips (not with taco dinner)		QDY_166		
	167. Popcorn		QDY_167		
	168. Nuts	1) Not eaten	QDY_168		
	169. Mixed candy (Norwegian "smågodt")	2) 1 time per month 3) 2-3 times per month	QDY_169		
	170. Snowballs	4) 1 time per week 5) 2-3 times per week	QDY_170		
	171. Chocolate bar, plain (Norwegian "Melkesjokolade", Norwegian "Firkløver", Norwegian "Stratos" etc.) (small bar)	6) 4-6 times per week 7) 1 time per day 8) 2 times per day or more	QDY_171		
	172. Chocolate bar, filled (Mars, Japp, Snickers etc.) (1 piece)		QDY_172		
	173. Dark chocolate (1/4 bar)		QDY_173		

- 2. Description of original questions: MoBa specific single questions
- 3. Rationale for choosing the questions:

These questions are developed to get information about youth's intake of snacks.

4. Revision during the data collection period: No revisions have been made.

# 174 – 180. Meal pattern

1. Name of original questions: questions about meal habits.

Q		Response options	Variable name	
174- 177				
	174. Breakfast	1) Never or almost never	QDY_174	
	175. Lunch	2) 1-2 times per week	QDY_175	
	176. Dinner	3) 3-4 times per week 4) 5-6 times per week	QDY_176	
	177. Evening meal	5) Every day	QDY_177	
178	How often do you eat breakfast or	dinner with your family?	-	
		<ol> <li>Never or almost never</li> <li>1-2 times per week</li> <li>3-4 times per week</li> <li>5-6 times per week</li> <li>Every day</li> </ol>	QDY_178	
179	Where do you get your school lune	ch?		
	1) Bring packed lunch from home		QDY_179_1	
	2) Buy at school		QDY_179_2	
	3) Buy outside of school		QDY_179_3	
	4) Don't eat lunch at school		QDY_179_4	
180	How often do you eat food from M	cDonald's, Narvesen, 7-Eleven etc.?		
		<ol> <li>Never/seldom</li> <li>1-3 times per month</li> <li>1 time per week</li> <li>2-3 times per week</li> <li>4-6 times per week</li> <li>1 time per day or more</li> </ol>	QDY_180	

2. Description of original questions: MoBa specific single questions

## 3. Rationale for choosing the questions:

These questions were developed to get information about youth's meal habits.

4. Revision during the data collection period: No revisions have been made.

# **181 - 189. Supplements**

1. Name of original questions: questions about intake of supplements.

Q		Response options	Variable name		
181- 187	How often have you taken the follow	ving supplements during the last month?			
	181. Cod liver oil		QDY_181		
	182. Cod liver/fish oil capsules	1) Not used	QDY_182		
	183. Multivitamins without minerals	2) 1-3 times per month 3) 1-2 times per week	QDY_183		
	184. Multivitamins with minerals	4) 3-4 times per week	QDY_184		
	185. Iron supplement	5) 5 times per week or more	QDY_185		
	186. Vitamin C		QDY_186		
	187. Vitamin D		QDY_187		
188	Have you used other supplements to	han those mentioned above during the last month?			
		1) No	QDY_188		
		2) Yes			
189	What other supplements have you used?				
		Text variable.	QDY_189		

2. Description of original questions: MoBa specific single questions

## 3. Rationale for choosing the questions:

This is a measure of youth's intake of supplements.

4. Revision during the data collection period: No revisions have been made.

# 190. Participate in cooking at home

1. Name of original questions: question about food preparation

Q		Response option	Variable name
190	Do you participate in cooking at home	?	
		1) Never	QDY_190
		2) Seldom	
		3) Often	

2. Description of original questions: MoBa specific single questions

# 3. Rationale for choosing the questions:

This is a measure of youth's involvement in food preparation at home.

# 191 - 196. Food allergies

**1. Name of original questions:** questions about food allergies and intolerance.

Q		Response option	Variable name	
191	Do you have any kind of food allergy	Do you have any kind of food allergy or intolerance?		
		1) Yes	QDY_191	
		2) No		
192	What kind of food allergy/intolerance	do you have?		
	1) Egg		QDY_192_1	
	2) Milk		QDY_192_2	
	3) Nuts		QDY_192_3	
	4) Shellfish		QDY_192_4	
	5) Wheat, gluten		QDY_192_5	
193	If there is other food items you cannot	ot tolerate, write them here:		
		Text variable	QDY_193	
194	Are there food items that you avoid for	or other reasons than allergy/intolerance?		
		1)Yes	QDY_194	
		2) No		
195	What do you avoid eating?			
		Text variable	QDY_195	
196	Why do you avoid eating this food?	1	1	
		Text variable	QDY_196	

- 2. Description of original questions: MoBa specific single questions
- **3.** Rationale for choosing the questions: This is a measure of youth's food allergy or intolerance.
- **4. Revision during the data collection period:** No revisions have been made.

# 197 - 198. Sleep

1. Name of original questions: questions about sleeping habits

Q	Re	sponse option	Variable name
197	How many hours do you sleep every night on weekdays?		
	1) [	Less than 5 hours	QDY_197
	2) 5	5 hours	
	3) 6	6 hours	
	4) 7	7 hours	
	5) 8	8 hours	
	6) 9	9 hours	
	7) 1	10 hours	
	8) ^	11 hours or more	
198	How many hours do you sleep every night	t on weekends?	
	1) [	Less than 5 hours	
	2) 5	5 hours	
	3) 6	6 hours	QDY_198
	4) 7	7 hours	
	5) 8	8 hours	
	6) 9	9 hours	
	7) ~	10 hours	
	8) 1	11 hours or more	

- 2. Description of original questions: MoBa specific single questions
- **3. Rationale for choosing the questions:** This is a measure of youth's sleeping habits.
- **4. Revision during the data collection period:** No revisions have been made.

# 199 - 208. Physical activity and after school activities

1. Name of original questions: questions about physical activity and after school activities.

Q		Response options	Variable name
	How active are you? Pick the answer that weekdays and weekends.	t best describes how active you have been the last month.	. Think about both
199	Do you participate in physical educati	on at school?	
		1) Yes 2) No	QDY_199
200	How many school hours do you partic	ipate in physical education at school?	
		1) Less than 1 school hour 2) 1-2 school hours 3) 3-4 school hours 4) 5-7 school hours 5) more than 7 school hours	QDY_200
201	Have you participated in organized sp	orts on your leisure time the last month?	
		1) Yes 2) No	QDY_201
202	What kind of sports?	,	I
	1) Football		QDY_202_1
	2) Handball		QDY_202_2
	3) Other ball games		QDY_202_3
	4) Gymnastics		QDY_202_4
	5) Athletics	-	QDY_202_5
	6) Cycling	-	QDY_202_6
	7) Dancing		QDY_202_7
	8) Horse riding		QDY_202_8
	9) Karate, other martial arts		QDY_202_9
	10) Skiing		QDY_202_10
	11) Others		QDY_202_11
203	How many hours in total do you spend	d doing organized sports per week?	
		1) Less than 1 hour 2) 1-2 hours 3) 3-4 hours 4) 5-7 hours 5) 8-10 hours 6) 11 hours or more	QDY_203
204	Have you participated in other organiz	l ·	<u>I</u>
		1) Yes 2) No	QDY_204
205	What other organized activities?		I
	1) Scouts		QDY_205_1
	2) Band (e.g. school band, brass band)		QDY_205_2
	3) Music school		QDY_205_3
	4) Choir		QDY_205_4
	5) Other		QDY_205_5
206	How many hours in total do you spend	d on other organized activities per week?	
		1) Less than 1 hour 2) 1-2 hours 3) 3-4 hours 4) 5-7 hours 5) 8-10 hours 6) 11 hours or more	QDY_206

207	Do you ride your bike or walk to school and/or after school activities?		
		1) Yes 2) No	QDY_207
208	How many hours a week have you cycled or walked to school and/or after school activities?		
		1) Less than 1 hour 2) 1-2 hours 3) 3-4 hours 4) 5 hours or more	QDY_208

2. Description of original questions: MoBa specific single questions

## 3. Rationale for choosing the questions:

This is a measure of youth's physical activity and after school activities.

4. Revision during the data collection period: No revisions have been made.

# 209 - 212. Time in front of screen

1. Name of original questions: questions about screen time.

Q		Response options	Variable name		
209- 211	How much screen time do you usually have during a weekday?				
	209. Screen time (PC, tablet etc.) for homework?	1) Less than 1 hour 2) 1-2 hours	QDY_209		
	210. Screen time (TV, tablet, smartphone, PC, etc.) for other things than homework?	3) 3-4 hours 4) 5-7 hours 5) 8-10 hours	QDY_210		
	211. Screen time (PC, TV etc.) at school?	6) 11 hours or more	QDY_211		
212	How much screen time (TV, tablet, sn	nartphone etc.) do you use to other things than homew	ork on days off?		
		1) Less than 1 hour 2) 1-2 hours 3) 3-4 hours 4) 5-7 hours 5) 8-10 hours 6) 11 hours or more	QDY_212		

2. Description of original questions: MoBa specific single questions

# 3. Rationale for choosing the questions:

This is a measure of youth's time in front of screen.

# 213 - 214. Height and weight

1. Name of original questions: questions about height and weight.

Q		Response options	Variable name
213	How high are you?		
		1) lower than 125 cm 2) 125 cm 3) 126 cm 76) 199 cm 77) 200 78) higher than 200	QDY_213
214	How much do you weigh?		
		1) less than 25 kg 2) 25 kg 3) 26 kg	QDY_214

- 2. Description of original questions: MoBa specific single questions
- **3.** Rationale for choosing the questions:

This is a measure of youth's height and weight.

**4. Revision during the data collection period:** No revisions have been made.

#### References

- 1. Rockett HR, Berkey CS, Colditz GA (2007) Comparison of a short food frequency questionnaire with the Youth/Adolescent Questionnaire in the Growing Up Today Study. *Int J Pediatr Obes* **2**, 31-39.
- 2. Øverby NC, Johannesen E, Jensen G *et al.* (2014) Test-retest reliability and validity of a web-based food-frequency questionnaire for adolescents aged 13-14 to be used in the Norwegian Mother and Child Cohort Study (MoBa). *Food Nutr Res* **58**.
- 3. Bjerregaard AA, Halldorsson TI, Kampmann FB *et al.* (2018) Relative validity of a web-based food frequency questionnaire for Danish adolescents. *Nutr J* 17, 9.
- 4. Lauritsen J (1998) FoodCalc v. 1.3. Diet, cancer and health project, Danish Cancer Society.