Questions Documentation
Questionnaire 4
when the child was 6 months old

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

Mother Questionnaire

Version 1.3

Please note:
This document describes the instruments used in the questionnaire. It has not yet undergone final quality control and may contain minor inaccuracies. The document is subject to revision. If you have any comments or suggestions for improvement, please contact mor.barndata@fhi.no.

Version	Date/responsible	Changes
1.0	12.2014/Fufen Jin	First version
1.1	29.09.2021/mobadata	Corrected question 92 'Postnatal depression' response option '4' form 'Yes, always' to 'No, never'.
1.2	08.08.2022/mobadata	Corrected response option and variable name in question 9.
1.3	01.07.2025/mobadata	Corrected variable name for ALDER3MND_SJEKK and ALDER6MND_SJEKK.

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MODEL STRUCTURE OF WHAT IS PRESENTED PER INSTRUMENT / SECTION

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 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

NOTE 1:
Q4 has five versions (A, B, F, G and H). Q4B= Q4C, D, E. This instrument documentation is based on version G.

NOTE 2:
Questions to which the answers are written into open text fields are annotated with two variable names. The first indicates whether or not there is text; the second contains the actual text. In the case of medication, there is an additional variable name with a “k” at the end, to indicate how the name of medicine has been coded.

About your child's birth

1-14. About your Child's Birth

1. Name of original questions: 14 questions about the child's birth

Q		Response options	Variable name
1	**Is your child a boy or girl?**		
		1-Boy 2-Girl	DD12
2	**How big was your child when he/she was born?**		
	Birth weight	Number 0-99	DD13
	length		DD14
3	**In which week of your pregnancy did you give birth?**		
	Week:	Number 0-99	DD15
4	**How long was your child in hospital after the birth?**		
	Number of days	Number 0-99	DD16
	Or weeks		DD17
5	**Was your child transferred to another department or hospital after the birth?**		
		1-No 2-Yes If yes, specify_____	DD18 DD19 DD848(txt.)
6	**Was your child delivered by caesarean section?**		
		1-No 2-Yes	DD20
7	**If yes, was the caesarean section planned?**		
		1-No 2-Yes	DD21
	If yes, why?	Breech presentation	DD22
		Previous caesarean	DD23
		Pregnancy complication or mother taken ill	DD24
		Poor growth or other factor relating to the foetus	DD25
		Own preferences	DD26
		Other	DD27
8	**Were there any complications during the birth?**		
		1-No 2-Yes	DD28
		If yes, describe:_____	DD29 DD849(txt.)
9	**Were you admitted or transferred to another department or other hospital due to complications in connection with the birth?** *(Applies both before and after the birth)*		
		1-No 2-Yes	DD30
10	**If yes, where?**		
		Department: _____	DD31 DD850(txt.)
		Hospital: _____	DD32 DD851(txt.)
11	**How many days were you in hospital in connection with the birth?**		
	Before the birth	Number of days	DD33
	After the birth		DD34
12	**Did the birth go as you expected?**		
		1-Yes, as expected 2-No, it went better 3-Neither/nor 4-No, it was worse 5-Don't know	DD35
13	**How true do you think the following descriptions are of the birth?**		
	I felt safe and in good hands	1-Fairly true 2-Partially true 3-Not true	DD36
	I was in a lot of pain		DD37
	I received too few pain-killing drugs		DD38
14	**Was anyone from your close family present at the birth?**		
		Yes, child's father	DD39
		Yes, someone else	DD40
		No	DD41

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

   Psychometric Information
   Not relevant.

   Base Reference/Primary Citation
   Not relevant.

3. **Rationale for choosing the questions:**
   The questions were developed to survey the baby's gender, weight, length at birth, immaturity birth, way of delivery and mother's feelings related to childbirth.

4. **Revision during the data collection period:**
   Questions 1-12 are not included in version A. No further revisions have been made.

About your child

15-22. Nutrition: Beverage Consumption

1. Name of original questions: Questions related to baby's beverage consumption

Q		Response options / Variable name						
15	**What did you give your child to drink during the first week of life?**							
	Breast milk							DD42
	Water							DD43
	Sugar water							DD44
	Formula							DD45
	Other							DD46
	Other, specify_____							DD47 DD852(txt.)
	Don't know/remember							DD48
16	**What has your child been given to drink during the first 6 months of his/her life?**							
		Child's age in months						
		0	1	2	3	4	5	6
	1. Breast milk	DD49	DD50	DD51	DD52	DD53	DD54	DD55
	2. Standard collett formula	DD56	DD57	DD58	DD59	DD60	DD61	DD62
	3. Collett formula with Omega 3	DD63	DD64	DD65	DD66	DD67	DD68	DD69
	4. Standard NAN formula	DD70	DD71	DD72	DD73	DD74	DD75	DD76
	5. Nan HA1 formula	DD77	DD78	DD79	DD80	DD81	DD82	DD83
	6. Other milk	DD84	DD85	DD86	DD87	DD88	DD89	DD90
	7. Other milk, describe_____	DD91 DD853(txt.)						
	8. Water	DD1079	DD1080	DD1081	DD1082	DD1083	DD1084	DD1085
	9. Squash/Juice	DD1086	DD1087	DD1088	DD1089	DD1090	DD1091	DD1092
17	**How often do you give your child the following to drink at the moment?**							
	1.Breast milk							DD92
	2.Breast milk supplement							DD93
	3.Normal sweet milk, any type							DD94
	4.Sour milk (yogurt, buttermilk, etc.)							DD95
	5.Organic milk products (milk, yogurt)	1) Never/seldom						DD96
	6.Boiled water							DD97
	7.Tap water	2) 1-3 times a week						DD101
	8.Bottled water							DD102
	9.Bottled baby cordial	3) 4-6 times a week						DD103
	10.Other type of cordial, sweetened							DD104
	11.Cordial, artificially sweetened	4) At least once a day						DD105
	12.Juice							DD106
	13.Other							DD107
	14.Other, specify							DD108 DD854 (txt.)

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed to measure the baby's nutrition through intake of beverage.

4. Revision during the data collection period:
For question 16, the response columns do not include '6 months' in version A. Items 8 and 9 in question 16 are only included in versions F, G, and H. No further revisions have been made.

15-22. Nutrition: Food Consumption

1. Name of original questions: Questions related to baby's food consumption

Q		Response options / Variable name	
18	**How often does your child eat the following food at the moment, and how old was your child when you started giving him/her this food?**		
		How often do you give this to your child?	*How old was your child when you gave him/her this food for the first time?*
		1) Never/seldom 2) 1-3 times a week 3) 4-6 times a week 4) At least once a day	_____months
	Instant porridge		
	1.Rice porridge, maize porridge	DD109	DD110
	2.Oatmeal porridge, different types	DD111	DD112
	3.Wheat porridge, all types, rusk porridge	DD113	DD114
	Home-made porridge using		
	4.Wheat flour(rough/fine), rusk, semolina, oats	DD115	DD116
	5.Iron-enriched wheat flour	DD117	DD118
	6.Helios baby flour	DD119	DD120
	7.Millet	DD121	DD122
	Processed dinner in a jar		
	8. Vegetables	DD123	DD124
	9. Vegetables and meat	DD125	DD126
	Home-made dinner		
	10. Potato/vegetable puree	DD127	DD128
	11. Meat and vegetables/potatoes	DD129	DD130
	12. Fish and vegetables/potatoes	DD131	DD132
	13. Other type of home-made dinner	DD133	DD134
	Snack/dessert		
	14. Home-made fruit puree	DD135	DD136
	15. Fruit/berry puree in a jar	DD137	DD138
	16. Rusks/biscuits/bread	DD139	DD140
	17. Other	DD141	DD142
	Other, specify_____	DD143 DD855 (txt.)	
19	**Do you think or do you know that your child has a reaction to milk/dairy products?**		
		1-No 2-Yes	DD144
20	**If yes, which products?**		
	Whole milk		DD145
	Low-fat milk/skimmed milk		DD146
	Cream/whipped cream/ice cream		DD147
	Yogurt/sour milk		DD148
	Breast milk when mother is drinking milk		DD149
	Other		DD150

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed to measure the baby's nutrition through intake of food.

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

15-22. Nutrition: Dietary Supplement

1. Name of original questions: Questions related to baby's vitamins or other dietary supplement

Q		Response options			Variable name
21	**Do you give your child cod liver oil, vitamins, iron or any other dietary supplement?**				
					DD151
22	**If you give your child cod liver oil, vitamins, iron or another dietary supplement, specify how much you give your child each time and how often. How old was your child in months and weeks when you gave him/her the product for the first time?**				
		How many teaspoons each time?	*How often do you give your child this?*	*How old was your child when you started giving the product?*	
			1-Daily 2-Sometimes	Months	Weeks
	1.Cod liver oil	DD152	DD153	DD154	DD155
	2.Biovit	DD156	DD157	DD158	DD159
	3.Sanasol	DD160	DD161	DD162	DD163
	4.Nycoplus Multi-Vitamin mixture for children	DD164	DD165	DD166	DD167
	5.Fluoride		DD168	DD169	DD170
	6. Iron supplement		DD171	DD172	DD173
	Iron supplement, specify_____	DD174 DD856(txt.)			
	7. Other dietary supplement		DD175	DD176	DD177
	Other dietary supplement, specify____	DD178 DD857(txt.)			

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed to measure the baby's nutrition through intake of cod liver oil, vitamins and other dietary supplement.

4. Revision during the data collection period:
Item 4 'Nycoplus Multi-Vitamin mixture for children' of question 22 is only included in version A and B. Item 6 'iron supplement' of question 22 is not included in version A. No further revisions have been made.

Growth, health and use of medication

23-26. Vaccination and Growth

1. Name of original questions: Questions related to baby's vaccination and growth

Q		Response options			Variable name
23	**How many times have you been to the mother and child health centre with your child?**				
		1) Never 2) 1-2 times 3) 3-5 times 4) 6-10 times 5) More than 10 times			DD179
24	**Has your child been given the vaccinations recommended by the health centre?**				
		1) Yes 2) No, don't want vaccination 3) The child has been often ill 4) No, vaccination postponed for practical reasons 5) Don't know			DD180
25	**Referring to your child's health card, enter a cross for the vaccinations which your child has received and whether the vaccinations had any side-effect.**				
		Has your child received the vaccination?	*Was there any side-effect after the vaccination?*	*Was there any side-effect resulting in contact with a doctor?*	*Was there any side-effect resulting in hospital admission?*
		1-No 2-Yes	1-No 2-Yes	1-No 2-Yes	1-No 2-Yes
	1.DTP(infanrix)	DD184	DD185	DD186	DD187
	2.DT (diphtheria/tetanus)	DD188	DD189	DD190	DD191
	3.Polio-Hib(Act-Hib polio)	DD192	DD193	DD194	DD195
	4.Hepatitis B (Engerix-B)	DD196	DD197	DD198	DD199
	5.BCG (tuberculosis)	DD200	DD201	DD202	DD203
	6.Pneumococcus (Prevenar)	DD1103	DD1104	DD1105	DD1106
	7. Other vaccination	DD204	DD205	DD206	DD207
	Other vaccination, specify_____	DD208 DD858(txt.)			
26	**Referring to your child's health card, enter below your child's weight, length and head circumference when he/she was around 6 weeks, 3 months and 6 months.**				
		Date of examination		*Length*	*Head circumference*	*Weight*
		Day / Month / Year		Number 0-999 cm	Number 0-999cm	Number 0-9999g
	Approx.. 6 weeks	ALDER6UK_SJEKK		DD213	DD214	DD212
	Approx. 3 months	ALDER3MND_SJEKK		DD219	DD220	DD218
	5-6 months	ALDER6MND_SJEKK		DD225	DD226	DD224

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed to survey the baby's vaccination and growth as measured by length, head circumference and weight in three time periods.

4. Revision during the data collection period:
Question 23, items 3 & 5 of question 25 are not included in version A. Item 6 'Pneumococcus (Prevenar)' of question 25 is only included in versions G and H.

27-30. Long-term Illnesses or Health Problems

1. Name of original questions: Questions related to baby's long-term illness or health problems

Q		Response options	Variable name
27	**Does your child have or has he/she had any of the following health problems? If yes, has the mother and child health centre or someone else referred your child for further specialist investigation?**		
	In versions B, F, G, H	*Has (had) problem?* 1-No 2-Yes	*Been referred for a specialist investigation?* 1-No 2-Yes, referred from health centre 3-Yes, referred by someone else
	1.Hip disorder/dislocated hip	DD227	DD228
	2.Impaired hearing	DD229	DD230
	3.Impaired vision	DD231	DD232
	4.Delayed motor development (movement development)	DD233	DD234
	5.Too little weight gain	DD235	DD236
	6.Too much weight gain	DD237	DD238
	7.Abnormal head circumference	DD239	DD240
	8.Heart defect	DD241	DD242
	9.Testicles not descended into scrotum	DD243	DD244
	10.Asthma	DD245	DD246
	11.Atopic eczema (childhood eczema)	DD247	DD248
	12.Hives	DD249	DD250
	13.Food allergy/intolerance	DD251	DD252
	14.Delayed psychomotor development (several functions)	DD1107	DD1108
	15.(Other) malformations	DD253	DD254
	Other malformations, specify____	DD255 DD859(txt)	
	16.Other	DD256	DD257
	Other, specify____	DD258 DD860 (txt)	
28	**If your child was referred for a specialist investigation, what did this investigation show?**		
		1) Everything was fine 2) Still some doubts/further investigation needed 3) Don't know	DD259
		Given the following diagnosis:____	DD260 DD861(txt.)
29	**Is your child suspected of having a syndrome or chromosomal defect?**		
		No	DD1109
		Yes, a syndrome	DD1110
		Yes, a chromosomal defect	DD1111
		If yes, specify the name or describe the problem	DD1112
		Description of the problem	DD1113 DD1120(txt.)
30	**Has your child been treated for a hip problem (hip dysplasia)?**		
		1) No 2) Yes, treated with a cushion 3) Yes, treated with a plaster cast 4) Yes, treated with braces	DD261
		If yes, how long did the treatment go on for? ____months	DD262

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. **Rationale for choosing the questions:**
   Questions were developed for MoBa, specifically for the purpose of assessing the presence of long-term illnesses and health problems of the baby at 6 months. These particular illnesses and health problems have been chosen to cover both common public health issues as well as rare illnesses. Information about referral to a specialist can be used as an indicator of severity of illness.

4. **Revision during the data collection period:**
   Item 14 'delayed psychomotor development (several functions)' of question 27, and question 29 are only included versions G and H.

31-35. Acute Illness/Health Problems, Hospitalisation, and Medication

1. Name of original questions: Questions about baby's acute illness/ health problems, use of medication and admission to hospital due to illness

Q		Response options / Variable name			
31	**Has your child had the following illness/health problem? If yes, did you go to a doctor or hospital about it?**				
		Has your child had health problems?	Number of times	Did you go to a doctor/clinic for this?	Been admitted to hospital?
		1-No 2-Yes		1-No 2-Yes	1-No 2-Yes
	1.Common cold	DD263	DD264	DD265	DD266
	2.Throat infection	DD267	DD268	DD269	DD270
	3.Ear infection	DD271	DD272	DD273	DD274
	4.Pseudocroup	DD275	DD276	DD277	DD278
	5.Bronchitis/RS virus/pneumonia	DD279	DD280	DD281	DD282
	6.Gastric flu/diarrhoea	DD283	DD284	DD285	DD286
	7.Urinary tract infection	DD287	DD288	DD289	DD290
	8.Conjunctivities	DD291	DD292	DD293	DD294
	9.Febrile convulsions	DD295	DD296	DD297	DD298
	10.Other convulsions (with any fever)	DD299	DD300	DD301	DD302
	11. Colic	DD303	DD304	DD305	DD306
	12.Nappy rash	DD307	DD308	DD309	DD310
	13.Other	DD311	DD312	DD313	DD314
	Other, describe_____	DD315 DD862 (txt.)			
	In version A	*Has (had) your child problem?*		Did you go to a doctor/clinic for this?	Been admitted to hospital?
		1-No 2-Yes		1-No 2-Yes	1-No 2-Yes
	1. Common cold / sore throat	DD928		DD929	DD930
	2. Bronchitis / RS virus	DD931		DD932	DD933
	3. Bronchitis / Pneumonia	DD934		DD935	DD936
	4. Asthma	DD937		DD938	DD939
	5. Children Eczema / atopic dermatitis	DD940		DD941	DD942
	6. Food allergy / intolerance	DD943		DD944	DD945
	7. Congenital malformation	DD946		DD947	DD948
	8. Delayed development	DD949		DD950	DD951
	9. Injuries	DD952		DD953	DD954
32	**Have your child ever been given any medication?**				
		1-No 2-Yes			DD316
33	**If yes, give the name of the medicines and when they were given. *(Include all types of medication, as well as natural medicines, taken both on a regular and occasional basis.)***				

		Name of medicine	*How old was your child when you gave the medicine?*				*Number of days given in total*
			<1 month	1-2 months	3-4 months	5-6 months	Number 0-999
	1.	DD317 DD863_K	DD318	DD319	DD320	DD321	DD322
	2.	DD323 DD864_K	DD324	DD325	DD326	DD327	DD328
	3.	DD329 DD865_K	DD330	DD331	DD332	DD333	DD334
	4.	DD335 DD866_K	DD336	DD337	DD338	DD339	DD340

34	**Has your child been examined at or admitted to hospital (since returning home from hospital after birth)?**		
		1-No 2-Yes	DD344
		Yes, specify___	DD345 DD867 (txt.)
35	**Has your child been operated on or does he/she have a condition requiring an operation?**		
		1-No 2-Yes	DD346
		Yes, specify____	DD347 DD868 (txt.)

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:

Questions were developed for MoBa to survey the occurrence of illness or health problems of more acute nature, along with use of medicine and admission to hospital during the first 6 months of the baby's life. Whether the child has been admitted to or examined at a hospital is meant as an indicator of reliability of the mothers' response. The name of the hospital is relevant in cases where additional data are considered to be collected directly from the hospital.

4. Revision during the data collection period:

The list of illnesses in question 31 is different from version A to the other versions (see table above). No further revisions have been made.

Development, childcare and life style

36. Child's Development

1. Name of original scale: Ages and Stages Questionnaires (ASQ)

Q		Response options	Variable name
36	**The following questions concern your child's development. If you haven't actually observed your child, spend a little time looking at what he/she can actually do.**		
	1. When your child is lying on his/her back, does he/she play by grabbing hold of his/her feet?	1-Yes, often 2-Yes, but seldom 3-No, not yet 4-Don't know	DD348
	2. When your child is on his/her tummy, does he/she straighten both arms and push her whole chest off the bed or floor?		DD349
	3. Does your child roll over from his/her back onto his/her tummy?		DD350
	4. When you "chat" to your child, does he/she try to "chat" back to you?		DD351
	5. Does your child babble and make sounds when he/she is lying on his/her own?		DD352
	6. Can you tell how your child is just by listening to the sounds he/she is making *(e.g. contented, hungry, angry, in pain)?*		DD353
	7. Do you get a smile from your child when you just smile at him/her *(without touching or tickling him/her and without holding up a toy)?*		DD354
	8. When you call your child, does he/she turn towards you one of the first times you say his/her name?		DD355
	9. Does your child grab a toy you offer and then put it in his/her mouth or hold it?		DD356
	10. When your child is sitting on your lap, does he/she stretch out for a toy or something else on the table in front of you?		DD357
	11. Does your child hold onto a toy with both hands when he/she is examining it?		DD358

2. Description of original instrument: Ages and Stages Questionnaires (ASQ)

The ASQ (Squires, et al., 1999) is a series of 19 parent-completed screening questionnaires for child development, specific to the ages of 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 27, 30, 33, 36, 42, 48, 54, and 60 months. Each questionnaire consists of five 6-item scales: Communication, Gross Motor, Fine Motor, Problem Solving, and Personal-Social. Parents answer "yes", "sometimes", or "not yet", according to whether the child can do the activity. The questionnaires were back translated into Norwegian (versions in both standard forms — Bokmål and Nynorsk — were produced). Janson and Smith (2003) presented descriptive results of the study along with details of the translation and adaptation.

Psychometric Information:

Cronbach's alphas on the communication area ranged from .63 to .74 at different ages. On the gross motor area, Cronbach's alphas ranged from .53 to .87 across ages, whereas on the fine motor area the alpha ranged from .49 to .86. Test-retest reliability, measured as percentage agreement between classifications based on the questionnaires completed twice by 175 parents at 2-weeks intervals, was 94%. Inter-observer reliability, measured as percentage agreement between classifications based on the questionnaires completed by 112 parents and those completed by two examiners, was 94%. As for the general validity of the ASQ, the questionnaires as reported in percent agreement between questionnaires and standardized assessments reached an 84% overall agreement. Specificity remained high (86%) across questionnaire intervals and standardized assessments. Sensitivity was lower, averaging 72% (Squires, et al., 1999). The construct validity of the ASQ was also supported in a Norwegian Study (Richter & Janson, 2007)

Base References/Primary Citations:

Janson, H. & Smith, L. (2003). *Norsk manualsupplement til Ages and Stages Questionnaires* [Norwegian manual supplement for the Ages and Stages Questionnaires]. Oslo, Norway: Regionsenter for barne- og ungdomspsykiatri, Helseregion Øst/Sør.

Squires, J., Potter, L., & Bricker, D. (1999). *The ASQ User's Guide* (2nd edition). Baltimore: Paul H. Brookes Publishing Co.

Richter & Janson (2007). A validation study of the Norwegian version of the Ages and Stages Questionnaire. *Acta Pædiatrica* 96:748-752.

3. **Rationale for choosing the questions:**
   The ASQ has been found to be an effective diagnostic tool of developmental delay and/or disturbances (Richter & Janson, 2007).

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

37-40. Child Care

1. Name of original questions: Questions about care of the child

Q		Response options	Variable name
37	**Where is your child cared for during the day?**		
	At home with mother/father/other family member		DD359
	At home with an unqualified childminder		DD360
	At a childminder's		DD361
	In a family creche		DD362
	In a nursery		DD363
38	**How many other children are there usually along with your child during the day?**		
		Number 0-99	DD364
39	**Does your child go to baby swimming?**		
		1-No 2-Yes	DD365
	If yes, indicate the number of times during the last 2 months	Number 0-99	DD366
40	**How often is your child outside?**		
		1) Seldom 2) Often, but less than 1 hour a day 3) 1-3 hours a day 4) More than 3 hours a day	DD367

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed for MoBa to survey what day care solution parents choose for their child, time spent on baby swimming and outside.

4. Revision during the data collection period:
The two response options 'at a childminder's' and 'in a family creche' in question 37 are put together in version A. No further revisions have been made.

41-44. Sleeping Habits

1. Name of original questions: Questions about the child's sleeping habits

Q		Response options		Variable name
41	**Does your child use a dummy/pacifier?**			
		1) Seldom or never 2) Only when he/she goes to sleep 3) Often 4) Most of the time		DD368
42	**How many hours in total does your child sleep per 24 hours?**			
		1) Less than 8 hours 2) 8-10 hours 3) 11-13 hours 4) 13-14 hours 5) More than 14 hours		DD369
43	**How do you put your child down when he/she is going to sleep?**			
		On back	*On side*	*On tummy*
	After the birth	DD370	DD371	DD372
	At 2 months	DD373	DD374	DD375
	At 4 months	DD376	DD377	DD378
	At 6 months	DD379	DD380	DD381
44	**Does your child share a bed with his/her mother/father (at least half the night)?**			
	After the birth	1) No 2) Sometimes 3) Often		DD382
	At 2 months			DD383
	At 4 months			DD384
	At 6 months			DD385

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed for MoBa to survey the child's sleep patterns in the last 6 months.

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

45-46. Child's Mood and Temperament

1. **Name of original scale:** Infant Characteristics Questionnaire—6 Months Form (ICQ-6), and a question concerning the frequency of wake-up during the night and comments about the questionnaire

Q		Response options	Variable name
45	**Say whether you agree or disagree with the following statements about the child's mood and temperament. Think about how he/she usually is.**		
	The child cries and complains a lot	1- Completely disagree 2- Disagree 3- Disagree somewhat 4- Indifferent 5- Agree somewhat 6- Agree 7- Agree completely	DD386
	The child is easy to calm when he/she cries		DD387
	The child is easily upset		DD388
	When the baby cries, he/she usually cries loudly and vigorously		DD389
	The child is easy to handle		DD390
	The child requires a lot of attention		DD391
	When left alone, he/she usually plays alone and is contented		DD392
	The child is so demanding that it would represent a considerable problem for most parents		DD393
	The child smiles and laughs frequently		DD394
	The child is easy to put to bed, and falls asleep quickly		DD395
46	**Currently how often does your child usually wake up during the night?**		
		1) 3 or more times every night 2) Once or twice every night 3) A few times a week 4) Seldom or never	DD396
Your comments about the questionnaire			
			DD397

2. **Description of original instrument**: **Infant Characteristics Questionnaire—6 Months Form (ICQ-6)**

The ICQ-6(Bates, et al., 1979) is comprised of 24 items describing infant behavior. The parent ranks each item on a 7-point scale, indicating the level of perceived difficulty in dealing with the described behavior. Four subscales have been identified through principal components analyses: Fussy/Difficult, Unadaptable, Dull and Unpredictable. The questions in this section were chosen mainly from the Fussy/difficult subscales. One question concerning sleep and two questions about positive experiences were added after advice from the pilot group.

Psychometric Information:

The internal consistency of the ICQ-6 was assessed on a cross-validation sample (N=196) with the following alpha coefficients: Fussy/Difficult, .79, Unadaptable, .75, Dull, .39, and Unpredictable, .50. Test-retest reliability scores computed over 2 to 10 day intervals were as follows: Fussy/Difficult, .70, Unadaptable, .54, Dull, .57, and Unpredictable, .47. Fussy/Difficult is the most clear-cut and valid factor of the ICQ-6, because behaviour characterizing this dimension of an infant's temperament is most readily recognized. Convergence has been noted between ICQ factors and comparable variables in other parent report temperament instruments (Bates, et al., 1979).

Base References/Primary Citations:

Bates JE, Freeland CA, Lounsbury ML. 1979. Measurement of infant difficultness. Infant characteristic questionnaire (ICQ). *Child Development* 50: 794-803.

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

The ICQ-6 measures parental perception of infant temperament, focusing on difficult temperament.

4. **Revision during the data collection period:**

Version A does not include question 46 and the comments on the questionnaire.

About yourself

47-52. Health after Childbirth

1. Name of original questions: About the mother's health after childbirth

Q		Response options	Variable name
47	**Did you go to your doctor/midwife/health visitor for your own health problems during the first month after the birth?**		
		1-No 2-Yes	DD401
		Yes, ___ times	DD402
48	**If yes, what was the reason for this?**		
		Perineal wounds/stitches	DD403
		Caesarean section wound	DD404
		Mastitis	DD405
		Sore nipples	DD406
		Breastfeeding problems	DD407
		Other	DD408
		Other, specify_____	DD409 DD869 (txt.)
49	**When you think back to the time just after the birth, did you feel depressed during that period?**		
		1-No 2-Yes	DD410
		Yes, ___ weeks	DD411
50	**Apart from being in hospital for the birth, have you been admitted to hospital since you completed the previous questionnaire?**		
		1-No 2-Yes	DD412
		Yes, specify hospital____	DD413 DD870 (txt.)
51	**Do you have a chronic/long-term illness which has started since you completed the previous questionnaire?**		
		1-No 2-Yes	DD414
		Yes, specify ____	DD415 DD871 (txt.)
52	**Overall, how would you describe your physical health at the moment?**		
		1-Very good 2-Good 3-Poor 4-Very poor	DD416

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed for MoBa to survey mother's health problems after child birth.

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

53. Illness/Health Problems and Use of Medication

1. Name of original questions: About the mother's illness/ health problems and use of medication

Q		Response options / Variable name							
53	**Have you had any of the following problems/illnesses since you completed the previous questionnaire? If yes, are you taking or have you taken medication for these problems?**								
	Illness/problems	*Have you suffered from…?*			*If you have taken medication…*				
		No	*Yes, last part during pregnancy*	*Yes, after the birth*	*Name of medication taken*	*Last part of this pregnancy*	*0-3 mth after the birth*	*4-6 mth after the birth*	*Number of days taken in total*
	1.Sugar in urine	DD417	DD418	DD419	DD420 DD872_K	DD421	DD422	DD423	DD424
	2.Protein in urine	DD425	DD426	DD427	DD428 DD873_K	DD429	DD430	DD431	DD432
	3.High blood pressure	DD433	DD434	DD435	DD436 DD874_K	DD437	DD438	DD439	DD440
	4.Swelling (oedema)	DD441	DD442	DD443	DD444 DD875_K	DD445	DD446	DD447	DD448
	5.Cystitis	DD449	DD450	DD451	DD452 DD876_K	DD453	DD454	DD455	DD456
	6.Sluggish bowels/constipation	DD457	DD458	DD459	DD460 DD877_K	DD461	DD462	DD463	DD464
	7.Diarrhoea/vomiting	DD465	DD466	DD467	DD468 DD878_K	DD469	DD470	DD471	DD472
	8.Heartburn/acidity	DD473	DD474	DD475	DD476 DD879_K	DD477	DD478	DD479	DD480
	9.Common cold /influenza	DD481	DD482	DD483	DD484 DD880_K	DD485	DD486	DD487	DD488
	10.Sore throat /sinusitis/ear infection	DD489	DD490	DD491	DD492 DD881_K	DD493	DD494	DD495	DD496
	11.Pneumonia/ bronchitis	DD497	DD498	DD499	DD500 DD882_K	DD501	DD502	DD503	DD504
	12.Asthma	DD505	DD506	DD507	DD508 DD883_K	DD509	DD510	DD511	DD512
	13.Hay fever/other allergy	DD513	DD514	DD515	DD516 DD884_K	DD517	DD518	DD519	DD520
	14.Headache/other pains	DD521	DD522	DD523	DD524 DD885_K	DD525	DD526	DD527	DD528
	15.Vaginitis	DD529	DD530	DD531	DD532 DD886_K	DD533	DD534	DD535	DD536
	16.Mental health problems	DD537	DD538	DD539	DD540 DD887_K	DD541	DD542	DD543	DD544
	17.Mastitis	DD545	DD546	DD547	DD548 DD888_K	DD549	DD550	DD551	DD552
	18.Fever	DD553	DD554	DD555	DD556 DD889_K	DD557	DD558	DD559	DD560
	19.Other	DD561	DD562	DD563	DD564 DD890_K	DD565	DD566	DD567	DD568
	Other, specify	DD569 DD881 (txt.)							

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

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. **Rationale for choosing the questions:**
   Questions were developed for MoBa to survey the presence of illness/health problems and use of medication in mothers 6 months after the birth. The list covers both common public health issues as well as rare illnesses.

4. **Revision during the data collection period:**
   Items 12, 13, and 18 of the question are not included in version A. No further revisions have been made.

54-57. Other Medicines and Dietary Supplements

1. Name of original questions: About the mother's use of other medicines and dietary supplements

Q		Response options / Variable name					
54	**Have you taken medicines other than those mentioned in Question 53?**						
		1-No 2-Yes				DD570	
55	**If yes, give the name of the medicines and when you took them.**						
		Name of medicine	*Last part of pregnancy*		*0-3 months after the birth*		*4-6 months after the birth*	
			Taken medication	*Number of days*	*Taken medication*	*Number of days*	*Taken medication*	*Number of days*
	1.	DD571 DD892_K	DD572	DD573	DD574	DD575	DD576	DD577
	2.	DD578 DD893_K	DD579	DD580	DD581	DD582	DD583	DD584
	3.	DD585 DD894_K	DD586	DD587	DD588	DD589	DD590	DD591
56	**Do you take or have you taken cod liver oil, vitamins or other dietary supplements since the previous questionnaire?**						
		1-No 2-Yes					DD570
57	**If yes, which product, when did you take it and how often?**						
		Name of medicine	*When did you take the product?*			*How often?*	
			Last part of pregnancy	*0-3 months after the birth*	*4-6 months after the birth*	*Taken daily*	*Taken sometimes*
	1.	DD593 DD895_K	DD594	DD595	DD596	DD597	DD598
	2.	DD599 DD896_K	DD600	DD601	DD602	DD603	DD604
	3.	DD605 DD897_K	DD606	DD607	DD608	DD609	DD610

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
The use of medication, vitamins, and supplements is considered an important proxy for possible disease, and is relevant to consider effects and prevalence of use.

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

58-64. Back and Pelvis Pain

1. Name of original questions: 6 questions about back and pelvis pain; one question about the resumption of sexual intercourse after the birth

Q		Response options	Variable name		
58	**Have you experienced any pain in your back or pelvis since you completed the previous questionnaire?**				
		1-No 2-Yes	DD614		
59	**If yes, enter a cross to indicate where you have experienced pain, when and how much.**				
	Where was the pain?		*Last part of pregnancy* 1-Some pain 2-Major pain	*0-3 months after the birth* 1-Some pain 2-Major pain	*4-6 months after the birth* 1-Some pain 2-Major pain
	Small of the back		DD615	DD616	DD617
	One of the pelvic/ sacroiliac joints at the back		DD618	DD619	DD620
	Both pelvic/ sacroiliac joints at the back		DD621	DD622	DD623
	Over the coccygeal bone		DD624	DD625	DD626
	In the buttocks		DD627	DD628	DD629
	Over the public bone		DD630	DD631	DD632
	Groin		DD633	DD634	DD635
	Other back pains		DD636	DD637	DD638
60	**Currently, do you wake up at night because of pelvic pain?**				
		1-No, never 2-Yes, but only sometimes 3-Yes, often	DD639		
61	**Do you have such problems walking at the moment due to pelvic pain that you have to use a stick or crutches?**				
		1-No, never 2-Yes, but not every day 3-Yes, every day	DD640		
62	**Have you *ever* received treatment for pelvic pain?**				
		1-No 2-Yes	DD641		
63	**If yes, enter a cross to indicate the type of treatment and when it was.**				
			Before this pregnancy	*During this pregnancy*	*After this birth*
	Physiotherapy		DD642	DD643	DD644
	Chiropractic		DD645	DD646	DD647
	Medication		DD648	DD649	DD650
	Other		DD651	DD652	DD653
	Other, specify		DD654 DD898 (txt.)		
64	**How long was it before you resumed sexual intercourse after the birth?**				
	_____weeks Have not had sexual intercourse	Number 0-99	DD655 DD656		

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. **Rationale for choosing the questions:**
   Questions were developed for MoBa to survey the presence of back and pelvis pain in different periods of time, along with its frequency, severity and treatment.

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

65. Incontinence

1. Name of original questions: Questions about incontinence 6 months after the birth

Q		Response options / Variable name	
65	**Do you have any of the following problems at the moment; if so, how often and to what extent?**		
	Problem	*How often?* 1) Never 2)1-4 times a month 3) 1-6 times a week 4) Once a day 5) More than once a day	*How much at a time?* 1-Drops 2-Large amounts
	Incontinence when coughing, sneezing or laughing	DD657	DD658
	Incontinence during physical activity (running/jumping)	DD659	DD660
	Incontinence with a strong need to urinate	DD661	DD662
	Problems with retaining faeces	DD663	N/A
	Problems with flatulence	DD664	

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed for MoBa to survey the presence of incontinence, problems with retaining faeces and problems with flatulence before and during this pregnancy.

4. Revision during the data collection period:
This section is not included in version H. No revisions have been made.

66-69. Ultrasound Scan

1. Name of original questions: 3 questions about ultrasound scan; one question about weight change before and after birth

Q		Response options	Variable name
66	**How many times did you go for an ultrasound scan during your pregnancy?**		
	_____ weeks	Number 0-99	DD665
67	**Was everything OK with the ultrasound scan(s)?**		
		1-No 2-Yes	DD666
68	**If no, what was the problem?**		
	The baby was not growing enough		DD667
	Suspected malformation		DD668
	Suspected malformation, describe____		DD669 DD899 (txt)
	Other		DD670
	Other, specify_____		DD671 DD900 (txt)
69	**How much did you weigh at the end of your pregnancy and how much do you weigh now?**		
	At end of pregnancy	_____kg	DD672
	Now	_____kg	DD673

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed to survey ultrasound scans during this pregnancy as well as results of these scans. Weight change after the birth is an indicator of the mother's recovery and health.

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

70-71. Sick Leave after the 30th Week of Pregnancy

1. Name of original questions: Questions about sick leave after the 30th week of pregnancy

Q		Response options					Variable name
70	**Were you completely or partly on sick leave after week 30 of your pregnancy? *(Don't include maternity leave)***						
		1-No 2-Yes, partly on sick leave 3-Yes, completely on sick leave					DD674
71	**If you were on sick leave after week 30 of your pregnancy, complete the table below with a line for each time you were on sick leave. Give the reason and enter a cross indicating which weeks of your pregnancy you were on sick leave. Specify how many days and what percentage of the period you were on sick leave each time.**						
		Reason for sick leave	*Sick leave during week of pregnancy*			*No. of days*	*% sick leave*
			30-33	34-37	38+		
	Sick leave No.1	DD675 DD901(txt)	DD676	DD677	DD678	DD679	DD680
	Sick leave No.2	DD681 DD902(txt)	DD682	DD683	DD684	DD685	DD686
	Sick leave No.3	DD687 DD903(txt)	DD688	DD689	DD690	DD691	DD692

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed to survey the woman's sick leave after 30th week of pregnancy.

4. Revision during the data collection period:
This section is not included in version A. No further revisions have been made.

72-77. Financial Situation, Pets and Electrical Heating Cables

1. Name of original questions: Questions about financial situation, pets, and electrical heating cables

Q		Response options	Variable name
72	**Would your current financial situation allow you to cope with an unexpected bill of NOK 10,000 for a dental visit or a repair, for instance?**		
		1-No 2-Yes 3-Don't know	DD693
73	**Have you found it difficult sometimes during the last six months to cope with running expenses for food, transport, rent, etc.?**		
		1-Never 2-Yes, but infrequently 3-Yes, sometimes 4-Yes, often	DD694
74	**Are there pets in the child's home?**		
		1-No 2-Yes	DD979
75	**If yes, which type(s)?**		
	1. Dog		DD696
	2. Cat		DD697
	3. Guinea pig/rabbit/hamster/ rat, etc.		DD698
	4. Budgie or other type of birds		DD699
	5. Other type of animals		DD700
	Other type of animals, specify____		DD701 DD904 (txt.)
76	**Do you have heating based on electrical heating cables under the floor in rooms where you child is?**		
		1-No 2-Yes	DD702
77	**If yes, in which rooms?**		
	Living room		DD703
	kitchen		DD704
	Child's room		DD705
	Bedroom		DD706
	Hall		DD707
	Bathroom		DD708
	Other rooms		DD709

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed to survey family's financial situations, pet keeping and the use of electrical heating cables at home.

4. Revision during the data collection period:
Questions 76 and 77 are not included in version A.

78-80. Physical Activity

1. Name of original questions: Questions about physical activities

Q		Response options	Variable name
78	**How often do you do exercises the following groups of muscles at home or at a gym?**		
	Abdominal muscles	1) Never 2) 1-3 times a month 3) Once a week 4) Twice a week 5) 3 times or more a week	DD710
	Back muscles		DD711
	Pelvic floor muscles (muscles around the vagina, urethra, anus)		DD712
79	**How often are you physically active at present?**		
	1. Walking	1) Never 2) 1-3 times a month 3) Once a week 4) Twice a week 5) 3 times or more a week	DD716
	2. Brisk walking		DD717
	3. Running/jogging/orienteering		DD718
	4. Bicycling		DD719
	5. Training studio/weight training		DD720
	6. Special gymnastics/aerobics for pregnant women		DD721
	7. Aerobics/gymnastics/dance without running and jumping		DD722
	8. Aerobics/gymnastics with running and jumping		DD723
	9. Dancing (swing/rock/folk)		DD724
	10. Skiing		DD725
	11. Ball sports		DD726
	12. Swimming		DD727
	13. Riding		DD728
	14. Other		DD729
80	**How often at the moment are you so physically active in your spare time and/or at work that you get out of breath or sweat?**		
	Spare time	1) Never 2) Less than once a week 3) Once a week 4) Twice a week 5) 3-4 times or more a week 6) 5 times a week or more	DD730
	At work		DD731

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
The questions were developed for MoBa to survey the mother's physical activities.

4. Revision during the data collection period:
This section is not included in version A. No further revisions have been found.

81-82. Smoking

1. Name of original questions: Questions about intake of nicotine

Q		Response options	Variable name					
81	**What were your and your partner/husband's smoking habits during the last 3 months of your pregnancy and in the period after the birth?**							
			Yourself			*Your partner/husband*		
			Last 3 mths during pregnancy	0-3 mths after birth	4-6 mths after birth	Last 3 mths during pregnancy	0-3 mths after birth	4-6 mths after birth
	1-Didn't smoke 2-Smoked sometimes 3-Smoked every day		DD732	DD733	DD734	DD735	DD736	DD737
	If every day, number of cigarettes per day		DD738	DD739	DD740	DD741	DD742	DD743
	If sometimes, number of cigarettes a day		DD1114	DD1115	DD1116	DD1117	DD1118	DD1119
82	**Is your child ever present in a room where someone smokes?**							
		1-No 2-Yes, sometimes 3-Yes, several times a week 4-Yes, every day	DD744					
		If every day, number of hours____	DD745					

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the parents' intake of nicotine and the baby's exposure to passive smoking during the last 3 months of the woman's pregnancy and in the period after the birth.

4. Revision during the data collection period:
The response column 'if sometimes, number of cigarettes a day' is only included in versions G and H.

83-84. Illegal Drugs and other Substances

1. Name of original questions: Questions about intake of illegal drugs and other substances

Q		Response options	Variable name		
83	**Did you take any of the following substances during the last 3 months of your pregnancy and after the birth?**				
			No	Yes, last 3 months of pregnancy	Yes, after birth
	Hash		DD746	DD747	DD748
	Amphetamine		DD749	DD750	DD751
	Ecstasy		DD752	DD753	DD754
	Cocaine		DD755	DD756	DD757
	Heroin		DD758	DD759	DD760
	Other		DD761	DD762	DD763
	Other, specify____		DD764 DD905 (txt.)		
84	**Have you taken any of the following substances during the last 3 months of your pregnancy and after the birth?**				
	Anabolic steroids		DD765	DD766	DD767
	Testosterone products		DD768	DD769	DD770
	Growth hormones (e.g. genotropin/somatropin)		DD771	DD772	DD773

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of pregnant women's intake of illegal drugs and other substances during the last 3 months of your pregnancy and after the birth, which may harm the unborn baby and the mother.

4. Revision during the data collection period:
Question 84 is not included in version A. No further revisions have been made.

85-86. Alcohol

1. Name of original questions: Questions about alcohol consumption

Q		Response options	Variable name
85	**How often did you drink alcohol during the last 3 months of your pregnancy and how often do you drink now?**		
	Last 3 months of pregnancy	1-Roughly 6-7 times a week 2-Roughly 4-5 times a week 3-Roughly 2-3 times a week 4- Roughly once a week 5- Roughly 1-3 times a week 6-Less than once a month 7-Never	DD774
	0-3 months after the birth		DD775
	4-6 months after the birth		DD776
86	**How many units of alcohol do you usually drink when you consume alcohol (complete both for the last 3 months of your pregnancy and afterwards)?**		
	Last 3 months of pregnancy	1) 10 or more 2) 7-9 3) 5-6 4) 3-4 5) 1-2 6) Less than 1	DD777
	0-3 months after the birth		DD778
	4-6 months after the birth		DD779

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed for MoBa to measure the women's alcohol intake from the last 3 months of pregnancy and afterwards.

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

A little more about yourself and how you are keeping now

87-88. Partnership Satisfaction

1. Name of original scale: The Relationship Satisfaction Scale (RSS)

Q		Response options	Variable name
87	**Do you have a boyfriend/husband/partner?**		
		1-No 2-Yes	DD780
88	**If yes, how well do these statements describe your relationship?**		
	1. I have a close relationship with my spouse/partner	1-Agree completely 2-Agree 3-Agree somewhat 4-Disagree somewhat 5-Disagree 6-Disagree completely	DD784
	2. My partner and I have problems in our relationship		DD785
	3. I am very happy with our relationship		DD786
	4. My partner is generally understanding		DD787
	5. I often consider ending our relationship		DD788
	6. I am satisfied with my relationship with my partner		DD789
	7. We frequently disagree on important decisions		DD790
	8. I have been lucky in my choice of a partner		DD791
	9. We agree on how our child should be raised		DD792
	10. I believe my partner is satisfied with our relationship		DD793

2. Description of original instrument: The Relationship Satisfaction Scale (RSS)

The RSS is a 10-item scale developed originally in Norwegian for the MoBa. The scale is based on core items used in previously developed measures of marital satisfaction and relationship quality (e.g. Blum & Mehrabian, 1999; Henrick, 1988; Snyder, 1997). All answers are scored on a 6-point scale from 'strongly agree' (1) to 'strongly disagree' (6).

Psychometric Information:

Internal reliability of the RS10 is high (alpha: .85-.90). Confirmatory factor analyses provide evidence for a unidimensional structure, high loadings and good fit. The RSS correlates .92 with the Quality of Marriage Index (QMI: Norton, 1983). Predictive validity is evidenced by ability to predict future break-up/divorce and life satisfaction (Dyrdal et al., 2011; Røsand, et al., 2013; Røysamb, Vittersø & Tambs, 2014). The 5-item short version (RS5) was empirically derived by identifying the best items in terms of accounting for variance in the full sum-score index. Multiple regression and factor analyses were used (Røysamb, Vittersø & Tambs, 2014). The short version correlates .97 with the full scale.

Base References/Primary Citations:

Blum, J. & Mehrabian, A. (1999). Personality and temperament correlates of marital satisfaction. *Journal of Personality* 67 (1): 93-125.

Dyrdal, G.M., Røysamb, E., Nes, R. B. & Vittersø, J. (2011). Can a happy relationship predict a happy life? A population-based study of maternal well-being during the life transition of pregnancy, infancy, and toddlerhood. *Journal of Happiness Studies 12*(6): 947- 962.

Gustavson, K., Nilsen, W., Ørstavik, R. & Røysamb, E. (2014). Relationship quality, divorce, and well-being: Findings from a three-year longitudinal study. *The Journal of Positive Psychology* 9(2): 163-174.

Henrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family 50*: 93-98.

Norton, R. (1983). Measuring marital quality: A critical look at the dependent variable. *Journal of Marriage and the Family 45*: 141-151.

Røsand, G-M. B., Slinning, K., Røysamb, E. & Tambs, K. (2013). Relationship dissatisfaction and other risk factors for future relationship dissolution: a population-based study of 18,523 couples. *Social Psychiatry and Psychiatric Epidemiology 49*(1): 109-119.

Røysamb, E., Vittersø, J. & Tambs, K. (2014). The Relationship Satisfaction scale: Psychometric properties. Norwegian Journal of Epidemiology [Norsk Epidemiologi] 24(1-2): 187-194.

Snyder, D. K. (1997). *Marital Satisfaction Inventory–Revised (MSI-R) Manual*. Los Angeles: Western Psychological Services.

3. Rationale for choosing the questions:

Partner relationship is considered a central aspect of family life. Relationship satisfaction is both an outcome *per se* and a potentially important predictor of mental health, well-being, divorce, and child-rearing.

4. Revision during the data collection period:

No revisions have been made.

89. Emotion: Enjoyment and Anger

1. Name of original scale: Differential Emotional Scale (DES), Enjoyment and Anger Subscales

Q		Response options	Variable name
89	**In your daily life, how often do you experience the following?**		
	1. Feel glad about something	1-Rarely or never 2-Hardly ever 3-Sometimes 4-Often 5-Very often	DD794
	2. Feel happy		DD795
	3. Feel joyful, like everything is going your way, everything is rosy		DD796
	4. Feel like screaming at somebody or banging on something		DD797
	5. Feel angry, irritated, annoyed		DD798
	6. Feel mad at somebody		DD799

2. Description of original instrument: The Differential Emotional Scale (DES)

The Differential Emotional Scale (DES; Izard, *et al*., 1993) derives from Izard's (1971) differential emotions theory. The DES consists of a series of subscales that capture various emotions. It is formulated around a thirty/forty-two-item adjective checklist, with three adjectives of each of the emotions. The DES has been developed through cross-cultural research and is thus considered to be emotion-specific. The scale comes in four forms. The items in this section were selected from Enjoyment and Anger subscales from DES-IV, which consists of 12 discrete subscales (Interest, Enjoyment, Surprise, Sadness, Anger, Disgust, Contempt, Fear, Shame, Shyness, and Guilt, Hostility Inward). Each item is administered on a 5-point (rarely/never to very often) scale.

Psychometric Information:

Construct validity of the DES has been documented for the different versions, including DES-IV (see e.g. Blumber & Izard, 1985; Kotsch, *et al*.,1982). For DES-IV, Alpha coefficients range from .56 to .85 (mean = .74). Internal reliability is .83 for Enjoyment and .85 for Anger (Izard *et al*., 1993).

Base References/Primary Citations:

Izard,CE, Libero, DZ, Putnam, P, & Haynes,O. (1993). Stability of emotion experiences and their relations to traits of personality. *Journal of Personality and Social Psychology* 64(5): 847-860.

Blumberg, S. H., & Izard, C. E. 1985. Affective and cognitive characteristics of depression in 10- and 11-year-old children. *Journal of Personality and Social Psychology* 49*:*194-202.

Izard, C. E. (1971). *The Face of Emotion*. New York, NY: Appleton-Century-Crofts.

Kotsch, W.E., Gerbing, D.W., and Schwartz, L.E. (1982). The construct validity of the Differential Emotional Scale as adapted for children and adolescents. In C.E. Izard (Ed.), *Measuring emotions in infants and children* (Vol. 1, pp. 251-278). Cambridge, England: Cambridge University Press.

3. Rationale for choosing the questions:

Enjoyment and anger represent basic emotional tendencies, typically not covered in symptom scales of mental health problems. The enjoyment sub-scale captures positive affect, considered a component of subjective well-being, and the anger sub-scale measures activated negative emotions that are not covered by typical symptom scales of distress.

4. Revision during the data collection period:

This section is not included in version A. No further revisions have been made.

90. Life Satisfaction

1. **Name of original scale:** The Satisfaction With Life Scale (SWLS)

Q		Response options	Variable name
90	**Do you agree or disagree with the following statements?**		
	1. In most ways my life is close to my ideal	1- Strongly disagree 2- Disagree 3- Slightly disagree 4- Neither agree nor disagree 5- Slightly agree 6- Agree 7- Strongly agree	DD800
	2. The conditions of my life are excellent		DD801
	3. I am satisfied with my life		DD802
	4. So far I have gotten the important things I want in life		DD803
	5. If I could live my life over, I would change almost nothing		DD804

2. **Description of original instrument**: **Satisfaction With Life Scale (SWLS)**
The SWLS (Diener et al., 1985) is a 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life. All answers are scored on a 7-point scale from 'strongly disagree' (1) to 'strongly agree' (7).

Psychometric Information:
Internal consistency (Cronbach's alpha) for the SWLS is between .79 and .89. Test-retest coefficients are between .84 and .54, with the decline of stability of the scale over longer periods. The SWLS demonstrates adequate convergence with related measures (r=.28~.82), and it has been shown to have potential as a cross-cultural index of life satisfaction (Diener et al., 1985; Pavot & Diener, 1993; Pavot, et al., 1993; Shigehiro, 2006; Vittersø, Røysamb & Diener, 2002).

Base References/Primary Citations:
Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment* 49: 71-75.

Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment*, 5, 164-172.

Pavot, W., Diener, E., Colvin, R., & Sandvik, E. (1991). Further validation of the Satisfaction with Life Scale: Evidence for the cross-method convergence of self-report well-being measures. *Journal of Personality Assessment* 57: 149-161.

Shigehiro, O. (2006). The concept of life satisfaction across culture: An IRT analysis. *Journal of Research in Personality* 40(4): 411-423.
Vittersø, J., Røysamb, E., & Diener, E. (2002). The concept of life satisfaction across cultures: Exploring its diverse meaning and relation to economic wealth. In E. Gullone & R. Cummins (Eds.), *The universality of subjective wellbeing indicators. A multidisciplinary and multi-national perspective* (pp. 81–103). Dordrecht, the Netherlands: Kluwer Academic Publishers.

3. **Rationale for choosing the questions:**
The Satisfaction With Life Scale is a well-established measure of life satisfaction.

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

91. Adverse Life Events

1. Name of original questions: Questions about adverse life events

Q		Response options & variable name	
91	**Have you experienced any of the following situations since the previous questionnaire? If yes, how painful or difficult was this for you?**		
		1-No 2-Yes	*If yes:* 1-Not too bad 2-Painful/difficult 3-Very painful/difficult
	1. Have you had problems at work or where you study?	DD805	DD806
	2. Have you had financial problems?	DD807	DD808
	3. Have you been divorced, separated or ended the relationship with your partner?	DD809	DD810
	4. Have you had any problems or conflicts with your family, friends or neighbors?	DD811	DD812
	5. Have you been seriously worried that there is something wrong with your child?	DD813	DD814
	6. Have you been seriously ill or injured?	DD815	DD816
	7. Has anyone close to you been seriously ill or injured?	DD817	DD818
	8. Have you been involved in a serious traffic accident, house fire or robbery?	DD819	DD820
	9. Have you lost someone close to you?	DD821	DD822
	10. Have you been pressurized into having sexual intercourse?	DD823	DD824
	11. Other	DD825	DD826

2. Description of original questions: MoBa specific single questions selected primarily because of their relevance to the population in general, partly due to their relevance to women with small children. The questions are inspired by a list adopted from Coddington (1972), which was directed at children from preschool to senior high school. The questions in this section were adapted to adult respondents.

Psychometric Information:
No relevant psychometric information has been found.

Base Reference/Primary Citation:
Coddington, R.D. 1972. The significance of life events as etiologic factors in the diseases of children. II. A study of a normal population. *Journal of Psychosomatic Research*, 16, 205-213.

3. Rationale for choosing the questions:
The selected questions were chosen because they were believed to address life events that supposedly affect the new mother and the baby.

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

92. Postnatal Depression

1. Name of original scale: Edinburgh Postnatal Depression Scale (EPDS)

Q		Response options	Variable name
92	**Have you experienced any of the following feelings during the last week?**		
	1. Have blamed yourself unnecessarily when things went wrong	1-Yes, most of the time 2-Yes, some of the time 3-Not very often 4-No, never	DD827
	2. Have been anxious or worried for no good reason		DD828
	3. Have felt scared or panicky for no very good reason		DD829
	4. Have been so unhappy that you have had difficulty sleeping		DD830
	5. Have felt sad or miserable		DD831
	6. Have been so unhappy that you have been crying		DD832

2. Description of original instrument: Edinburgh Postnatal Depression Scale (EPDS)

The Edinburgh Postnatal Depression Scale (EPDS) has been developed at health centres in Livingston and Edinburgh, to assist primary care health professionals to detect mothers suffering from postnatal depression (Cox, et al., 1987). It consists of 10 short statements. The mother checks which of the four possible responses (1-Yes, most of the time, 2-Yes, some of the time, 3-Not very often, 4-Yes, very often) is closest to how she has been feeling recently. Eberhard-Gran (2007) showed that five of the ten EPDS items could be used as a reliable and valid short-form EPDS-5, and this was decided to be used in MoBa. Unfortunately by a misunderstanding one item from EPDS-5 "I have looked forward with enjoyment to things'' was replaced by two other EPDS items, number three and six on the list above.

Psychometric Information:

The EPDS has satisfactory validity, split-half reliability and has been demonstrated to be sensitive to changes in the severity of depression over time. The sensitivity of the EPDS has been estimated at 86% and the specificity at 78% (Cox, et al., 1987). The EPDS-5 was developed and validated in a Norwegian population based sample of pregnant women (Eberhard-Gran, et al., 2001) and to correlate 0.96 with the original EPDS and 0.75 with the SCL-25. The same study estimated the sensitivity and specificity of the EPDS-5 100% and 70%, respectively, for clinically diagnosed major depression, using a ≥5 cut-off score. The sum of the 6 MoBa selected items correlated at r=.961 with the full version, and at r=.963 with the 5-item short version developed by Eberhard-Gran, et al. (2007). Cronbach's alpha for the 6-item short version in MoBa was estimated at .84.

Base References/Primary Citations:

Cox, J.L., Holden, J.M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786.

Eberhard-Gran M, Eskild A, Tambs K, Schei B, Opjordsmoen S. 2001. The Edinburgh Postnatal Depression Scale: Validation in a Norwegian community sample. *Nordic Journal of Psychiatry* 55:113–117.

Eberhard-Gran M, Eskild A, Samuelsen SO, Tambs K. 2007. A short matrix version of the Edinburgh Depression Scale. *Acta Psychiatica Scandinavica* 116: 195-200.

3. Rationale for choosing the questions:

The Edinburgh Postnatal Depression Scale is a valuable and efficient way of identifying patients at risk for 'perinatal' depression. It has been proven to be an effective screening tool (Cox, et al., 1987).

4. Revision during the data collection period:

No revisions have been made.

93. Rosenberg Self Esteem Scale

1. Name of original Scale: The Rosenberg Self-Esteem Scale (RSES)

Q		Response options	Variable name
93	**How do you feel about yourself?**		
	1. I have a positive attitude toward myself	1-Strongly agree	DD833
	2. I feel completely useless at times	2-Agree	DD834
	3. I feel that I do not have much to be proud about	3-Disagree	DD835
	4. I feel that I am a valuable person, as good as anyone else	4-Strongly disagree	DD836

2. Description of original Instrument: The Rosenberg Self-Esteem Scale (RSES)

The RSES (Rosenberg, 1965; 1986) is a 10-item scale, intended to measure global self-esteem. In the original version, half of the items are positively worded, while the other half negatively worded. Four of the selected items in this section constitute the short version of RSES (Tambs, 2004). Four response categories range from strongly agree to strongly disagree.

Psychometric Information:

Test-retest reliability ranges from .82 to .88. Cronbach's alpha ranges from .77 to .88 (Blascovich & Tomaka, 1993; Rosenberg, 1986). Alpha-reliability for the whole 10-item scale was .88 in a Norwegian sample of 250 youths (Ystgyrd, 1993). The four-item short version correlated .95 with the score based on the original 10-item scale, and the alpha reliability was estimated at .80 (Tambs, 2004).

Base References/Primary Citations:

Blascovich, J. & Tomaka, J. (1991). Measures of self-esteem. *Measures of personality and social psychological attitudes* 1:115-160.

Robinson, P.R. Shaver, and L.S. Wrightsman (eds.) (1991). *Measures of Personality and Social Psychological Attitudes (Third edition)*. Ann Arbor: Institute of Social Research.

Rosenberg, M. (1986). *Conceiving the Self*. Krieger: Malabar, FL.

Rosenberg, M. (1965). *Society and the Adolescent Self-image.* New Jersey: Princeton University Press.

Tambs, K. (2004). Valg av spørsmål til kortversjoner av etablerte psykometriske instrumenter. Ed. I. Sandanger, G. Ingebrigtsen, J.F. Nygård and K. Sørgyrd. *Ubevisst sjeleliv og bevisst samfunnsliv. Psykisk hele i en sammenheng. Festskrift til Tom Sørensen på hans 60-års dag*, 217-229. Nittedal: Nordkyst Psykiatrisk AS.

Ystgyrd, M. (1993). *Sårbar ungdom og sosialt støtte. En tilnærming til forebygging av psykisk stress og selvmord.* Oslo: Senter for sosialt nettverk og helse.

3. Rationale for choosing the questions:

The Rosenberg Self-Esteem Scale is one of the most widely used self-esteem measures in social science research.

4. Revision during the data collection period:

No revisions have been made.

94. Depression/Anxiety

1. Name of original scale: Selective items from the (Hopkins) Symptoms Checklist-25 (SCL-25)

Q		Response options	Variable name
94	**Have you been bothered by any of the following during the last two weeks?**		
	1. Feeling fearful	1-Not bothered 2-A little bothered 3-Quite bothered 4-Very bothered	DD837
	2. Nervousness or shakiness inside		DD838
	3. Feeling hopeless about the future		DD839
	4. Felling blue		DD840
	5. Worrying too much about things		DD841
	6. Feeling everything is an effort		DD842
	7. Feeling tense or keyed up		DD843
	8. Suddenly scared for no reason		DD844

2. Description of original instrument: The Hopkins Symptoms Checklist-25 (SCL-25)

The Hopkins Symptoms Checklist with 90 items (SCL-90) measures several types of symptoms of mental disorders, two of which are anxiety and depression. The instrument was originally designed by Derogatis, Lipman & Covi (1973) at Johns Hopkins University. The SCL-25 was derived from the SCL-90 and measures symptoms of anxiety (10 items) and depression (15 items) (Hesbacher et al, 1980). Eight of the selected items in this section constitute the short version SCL-8 (Tambs & Røysamb, 2014). Four items (i.e. 1, 2, 7 & 8) capture symptoms of anxiety and four items (i.e. 3, 4, 5 & 6) tap symptoms of depression. The scale for each question includes four categories of response ("not bothered," "a little bothered," "quite bothered," "very bothered," rated 1 to 4, respectively).

Psychometric Information:

A concordance rate of 86.7% was demonstrated between the assessment by the physician and the patient's own rating of distress on the SCL-25 (Hesbacher, et al., 1980). Using and available data material (Tambs & Moum, 1993), the SCL-8 scores were estimated to correlate 0.94 with the total score from the original instrument. The correlations between the SCL-8 anxiety and depression scores and the original anxiety and depression scores were 0.90 and 0.92, respectively (Tambs & Røysamb, 2014). The alpha reliability was estimated at 0.88, 0.78 and 0.82 for the SCL-8 total, anxiety and depression scores, respectively (Tambs & Røysamb, 2014).

Base References/Primary Citations:

Derogatis, L.R., Lipman, R.S. & Covi L. 1973. The SCL-90: an outpatient psychiatric rating scale. *Psychopharmacology Bulletin*, 9: 13-28.

Hesbacher PT, Rickels R, Morris RJ, Newman H, & Rosenfeld MD. 1980. Psychiatric illness in family practice. *Journal of Clinical Psychiatry*, 41: 6-10.

Strand, B.H., Dalsgard, O.S., Tambs, K., & Rognerud, M. 2003. Measuring the mental health status of the Norwegian population: A comparison of the instrument SCL-25, SCL-10, SCL-5 and MHI-5 (SF-36). *Nordic Journal of Psychiatry*, 57: 113-118.

Tambs, K. & Moum, T. 1993. How well can a few questionnaire items indicate anxiety and depression? *Acta Psychiatrica Scandnavica*, 87: 364-367.

Tambs, K. & Røysamb E. 2014. Selection of questions to short-form versions of original psychometric instruments in MoBa. *Norsk Epidemiologi* 24:195-201.

3. Rationale for choosing the questions:

Symptom Check List and its short versions have proven to be a brief, valid and reliable measure of mental distress (Tambs & Moum, 1993).

4. **Revision during the data collection period:**
   Only the first 5 items are included in version A; SCL-8 are used in all other versions of the questionnaire. No further revisions have been made.