

Supplementary Tables

Supplementary table S1. Child Behaviour Checklist (CBCL) – items used from the MoBa questionnaires at 3 year and 5 year. Sorted by internalizing and externalizing items.

The following list contains statements describing children's behavior and manner from the age of 2-3.

Items on the internalizing scale

- Clings to adults or too dependent
- Constipated, doesn't move bowels
- Disturbed by any change in routine
- Doesn't eat well
- Gets too upset when separated from parents
- Stomach aches or cramps (without medical cause)
- Sudden changes in moods or feelings
- Too fearful or anxious
- Vomiting, throwing up (without medical cause)

Items on the externalizing scale

- Can't concentrate, can't pay attention for long
- Can't sit still, restless or overactive
- Can't stand waiting, wants everything now
- Defiant
- Demands must be met immediately
- Gets in many fights
- Hits others
- Poorly coordinated or clumsy
- Punishment doesn't change his/her behavior
- Quickly shifts from one activity to another

The following list contains statements describing children's behavior from the age of 5.

Items on the internalizing scale

- Clings to adults or too dependent
- Disturbed by any change in routine
- Doesn't eat well

- Gets too upset when separated from parents
- Stomach aches or cramps (without medical cause)
- Too fearful or anxious
- Unhappy, sad or depressed
- Vomiting, throwing up (without medical cause)
- Feelings are easily hurt

Items on the externalizing scale

- Can't concentrate, can't pay attention for long
- Can't sit still, restless or overactive
- Can't stand waiting, wants everything now
- Defiant
- Demands must be met immediately
- Doesn't seem to feel guilty after misbehaving
- Gets in many fights
- Hits other
- Poorly coordinated or clumsy
- Punishment doesn't change his/her behavior

To what extent are the following statements true of your child's behavior during the last two months? Options:

1-Not true

2-Somewhat or sometimes true

3-Very true or often true

Supplementary Table S2. Description of prenatal dietary mercury exposure and demographic variables in the study sample for participants with information about child behavior at child age 3 and 5 years.

	Answered 3-year questionnaire		Answered 5-year questionnaires*	
	N	mean (SD) median	N	mean (SD) median
Mercury µg per day	51,238	1.63 (0.99) 1.47	31,737	1.63 (0.97) 1.50
Mercury µg/ kg bw/ week**	50,301	0.17 (0.11) 0.15	31,262	0.18 (0.11) 0.16
Maternal age at delivery		%		%
<25 years	4542	8.9	2354	7.4
25-29 years	16,996	33.2	10,232	32.2
30-34 years	23,175	45.2	14,795	46.6
≥35 years	6225	12.7	4356	13.7
Parity				
nulliparous	24,971	48.7	15,798	49.8
multiparous	26,267	51.3	15,939	50.2
Maternal education				
≤12 years	13,418	26.2	7007	22.1
13-16 years	22,535	44.0	14,215	44.8
≥17 years	14,317	27.9	9950	31.4
missing	968	1.9	565	1.8
Maternal income				
< 300,000 NOK per year	29,617	57.8	16,768	52.8
≥ 300,000 NOK per year	20,140	39.3	14,188	44.7
missing	1481	2.9	781	2.5
Smoking during pregnancy				
no smoking	47,755	93.2	30,106	94.9
occasional smoking	1121	2.2	554	1.7
daily smoking	2028	4.0	885	2.8
missing	334	0.7	192	0.6
Pre-pregnancy BMI, kg/m ²				
<18.5	33,446	65.3	21,054	66.3
18.5-24.9	1422	2.8	888	2.8
25-29.9	10,816	21.1	6649	21.0
≥30	4451	8.7	2581	8.1
missing	1103	2.2	565	1.8
Weekly fish servings				
0	1498	2.9	851	2.7
1	22,109	43.1	13,740	43.3
2	21,102	41.2	13,188	41.6
3	3139	6.1	1926	6.1
≥4	3390	6.6	2032	6.4

* Participants that answered the five-year questionnaire were included if they had also answered the three-year questionnaire and the CBCL score. The number of participants that answered the CBCL externalizing score were n= 31,737, while n=31,624 participants answered the CBCL internalizing score. In this overview we present demographics based on participants that answered the CBCL externalizing score.

**Missing due to missing reports of maternal body weight.

Abbreviations: NOK; Norwegian Kroner

Supplementary Table S3. Description of maternal blood mercury ($\mu\text{g/L}$) concentration and demographic variables for participants with information about child behavior at age 3 and 5 years.

	Answered 3-year questionnaire		Answered 5-year questionnaires*	
	N	Mean (SD) median	N	Mean (SD) median
Blood mercury levels ($\mu\text{g/L}$)	2936	1.21 (0.93) 1.02	2226	1.21(0.93) 1.03
Maternal age at delivery		%		%
<25 years	236	8.0	161	7.3
25-29 years	1033	35.2	755	34.1
30-34 years	1341	45.7	1043	47.1
≥ 35 years	326	11.1	256	11.6
Parity				
nulliparous	1513	51.5	1104	49.8
multiparous	1423	48.5	1111	50.2
Maternal education				
≤ 12 years	755	25.7	511	23.1
13-16 years	1380	47.0	1066	48.1
≥ 17 years	738	25.1	590	26.6
missing	63	2.1	48	2.2
Maternal income				
< 300,000 NOK per year	1803	61.4	1329	60.0
$\geq 300,000$ NOK per year	1058	36.0	834	37.7
missing	75	2.6	52	2.3
Smoking during pregnancy				
no smoking	2749	93.6	2100	94.8
occasional smoking	66	2.2	44	2.0
daily smoking	106	3.6	60	2.7
missing	15	0.5	11	0.5
Pre-pregnancy BMI, kg/m^2				
<18.5	1889	64.3	1436	64.8
18.5-24.9	89	3.0	64	2.9
25-29.9	677	23.1	516	23.3
≥ 30	226	7.7	160	7.2
missing	55	1.9	39	1.8
Weekly fish servings				
0	91	3.1	58	2.6
1	1312	44.7	981	44.3
2	1213	41.3	934	42.2
3	169	5.8	126	5.7
≥ 4	151	5.1	116	5.2

* Participants that answered the five-year questionnaire were included if they had also answered the three-year questionnaire and the CBCL score. The number of participants that answered the CBCL externalizing score were $n = 2226$ while only $n = 2215$ participants had answered the CBCL internalizing score. In this overview we are presenting demographics based on participants that answered the CBCL externalizing score.

Supplementary Table S4. Calculated dietary methylmercury (MeHg) intake and maternal blood mercury (Hg) concentration by quintiles of maternal fish intake.

Fish intake quintile range (g/week)	MeHg ($\mu\text{g}/\text{kg}$ bw/week) mean (IQR)	Blood Hg ($\mu\text{g}/\text{L}$) mean (IQR)
<95	0.06 (0.03, 0.09)	0.87 (0.38, 1.15)
96-153	0.12 (0.09, 0.15)	1.10 (0.53, 1.44)
154-210	0.17 (0.13, 0.20)	1.26 (0.67, 1.59)
211-291	0.21 (0.16, 0.25)	1.37 (0.71, 1.73)
292-1850	0.30 (0.22, 0.36)	1.51 (0.85, 1.92)