1.2 Introduction

The project, Scientific Co-operation (SCOOP) Task 3.2.11: Assessment of the dietary exposure to arsenic, cadmium, lead and mercury of the population of the EU Member States, was decided in October 2001 and commenced in January 2002. The objective of the task is to provide the scientific basis for the evaluation and management of risk to public health arising from dietary exposure to arsenic, cadmium, lead and mercury. This requires the identification of the major dietary sources of these elements and the estimation of the intakes by both the whole population and by any high-risk subgroups for each Member State.

The Joint FAO/WHO Expert Committee on Food Additives (JEFCA) has established Provisional Tolerable Weekly Intakes (PTWI) for cadmium, lead, mercury and methylmercury. These may be compared with the intake estimates obtained from the different Member States. The outcome of these comparisons is an indication of the risk for hazardous exposure run by the citizens in the Member States.

The EU Scientific Committee for Food reports in its Opinion on Cadmium (thirty-sixth series. 1997) great concerns regarding its limited ability to assess the dietary exposure, due to lack of reliable consumption data. It concludes, however, that a significant part of the population has an intake of cadmium, from dietary sources alone, that is close to the PTWI. For lead the Committee concludes (Opinion on Lead, thirty-second series. 1994) that the level of contamination of foodstuffs does not seem to be a cause for alarm. It does, however, note that the reasons for extremely high levels, which are occasionally found in foodstuffs, need to be indentified. Long term action should follow with the objective of further lowering the lead levels in foodstuffs.

In the context of the Scientific Co-operation the Commission of the Member States proposed a specific task on lead, cadmium, mercury and arsenic. Italy and Sweden accepted a joint Co-ordinatorship and were assigned the task by a Commission Decision of 26/10/2001.

Member States contributing to the scoop project

BELGIUM	BE
DENMARK	DK
FINLAND	FI
FRANCE	FR
GERMANY	DE
GREECE	HE
IRELAND	IR
ITALY	IT
THE NETHERLANDS	NL
NORWAY*	NO
PORTUGAL	PT
SWEDEN	SE
UNITED KINGDOM	UK

*Norway is not distinguished from Member States in this report.

Intake data was primarily submitted for the mean adult population in the Member States. Some Member States submitted data also for certain other population and age groups. See Table 1.1. for details.

Table 1.1. Arsenic, cadmium, lead and mercury. Intake data reported for different population and consumer groups in the Member States

Population	BE	DK	FI	FR	DE	HE	IR	IT	NL*	NO	PT	SE	UK
Adult. Mean		X	X	X	X	X	X	X	X	X	X	X	X
Adult. High Level				X	X	X	X			X	X		
Children (4-6 years). Mean.					X								
Children (4-6 years). High level.					X								
Children (10-12 years). Mean.					X								
Children (10-12 years). High level.					X								
Children (3-14 years). Mean				X									
Children (3-14 years). High level				X									
Children (14-18 years). Mean	X												
Children (14-18 years). High level	X												
Consumers													
Adult. Mean				X	X	X	X			X			X
Adult. High Level				X	X	X	X			X			X
Children (3-14 years). Mean.				X									
Children (3-14 years). High level.				X									
Children (4-6 years). Mean.					X								
Children (4-6 years). High level.					X								
Children (10-12 years). Mean.					X								
Children (10-12 years). High level.					X								
Children (14-18 years). Mean.	X												
Children (14-18 years). High level.	X												

*For cadmium and mercury only.

Spain declined further participation at an early stage of the project. Austria did not submit data. The Netherlands decided not to submit occurrence data for arsenic and lead.

Institutes in the Member States provided the latest national information in accordance with the agreed format. The information to be collated was primarily concerned with:

- The concentration of arsenic, cadmium, lead and mercury in foodstuffs.
- Food consumption data at the national levels.
- Dietary intake of the elements at Member State level.

1.3 Legislation

Maximum levels

The Commission Regulation (EC) No 466/2001 adopted in March 2001, established maximum levels (MLs) of cadmium and lead in certain foodstuffs and mercury in fish products. The regulation is in force since 5 April 2002. The Commission Regulation (EC) No 221/2002 of February 2002 amended maximum levels of cadmium, lead and mercury in certain fishery products. A revaluation of the MLs will begin in 2003. For arsenic no ML is yet established.

Compliance with MLs for cadmium, lead and mercury in the Member States
A comparison with the MLs for cadmium, lead and mercury will be made for foodstuffs for which MLs are established. The results will be found in sections 3.5, 4.5 and 5.5, repectively. When data in tables 3.6, 4.6 and 5.6 differ from those in other occurrence data tables it may be due to differences in reporting by the Member States, or by the interpretation by the coordinators.

Criteria for sampling, sample treatment and methods of analysis
The Commission Decision 90/515/EEC laid down the reference methods for detecting residues of cadmium, lead and arsenic. Subsequently, the Commission Directive 2001/22/EC of 8 March 2001 laid down criteria for the sampling methods and the requirement to be met in sample treatment and analysis of cadmium, lead, and mercury for the official control of their levels in foodstuffs. Several established analytical methods are available which comply with these requirements.

1.4 Estimation of food consumption

There are various types of data describing food consumption. Household budget surveys generally cover amounts of foods brought into the household and refer to the food as purchased, i.e. no information on preparation methods and actually consumed amounts. In individual dietary surveys different methods are used covering short periods or more long-term intake. Here the aim is to cover the actual amounts consumed.

Food consumption data derived from various studies were used to calculate the intake of mineral elements. Several Member States had access to national representative surveys, whereas others had more limited studies at their disposal**.** These data were combined with occurrence data, e.g., consumption of 0.25 kg of a foodstuff containing 0.100 mg As/kg represents an intake of 0.025 mg As. Only food consumption data for which occurrence data exist were used. Analytical data should according to agreement be validated and up to date. In certain cases older data could be used, provided their quality could be verified.

1.5 Dietary intake of elements

The consumption of food within the various food groups, for which there are occurrence data available, varies considerably between the Member States and regions, as can be seen in Tables 2.1, 3.1, 4.1 and 5.1 These differences must, however, be viewed with caution since the number of specific food items in each food group can vary considerably between countries. For example, Greece has occurrence data only for dried and preserved fruit in the food group “Fruit and vegetables”, Sweden has occurrence data only for table wine in the food group “Beverages”. The consumption of milk in Germany appear to be only a fraction of what is consumed in the other Member States, but is based only on the consumption of dry milk. Information on the UK food groups can be found in the UK’s consumption and intake section in ***Annex A***.

Provisional Tolerable Weekly Intakes (PTWIs) has been established for cadmium, lead and mercury. They are based on per kg bodyweight, but, for simplicity, often given for a person weighing 70 kg. To facilitate a more precise calculation the mean body weight of adults in the participating Member States are shown in table 1.2. It should be noted that the mean weight is different between males and females and that the age brackets may vary between Member States.

Table 1.2. Age brackets applied in the different Member States and the mean body weight of Member State subjects, in kg. Data from national surveys.

Member State	Age (years)	Male (kg)	Female (kg)	Mean M/F (kg)
Belgium	14-18	60.7	59.1	60
Denmark	15-80			72
Finland	25-64	84.3	69.9	77.1
France	3-14	31.26	31.96	31.6
France	15+	73.88	60.11	66.4
France. Total population	3-15+	55.09	49.46	52.18
Germany	10-14			41
Germany	18+			70.5
Greece				70
Ireland				75
Italy				70
The Netherlands	1-97			65.8
Norway	16-79/18-79			73
Portugal				
Sweden		80.8	66.6	73.7
United Kingdom				70.1

The Member States may have national standards for intake estimations, based on criteria different from those used in this report. It may be noted that e.g. the UK does not use population estimates for comparison with safety guidelines, but merely to look at exposure trends over time. Total consumer estimates is used instead of comparison with the PTWI. The compilations used in this report are primarily made to facilitate comparison between Member States.

It must be observed that occurrence and intake data are reported using different units throughout this report - mg and µg.

1.6 Evaluation of the results

The occurrence data submitted by the participants were checked by the co-ordinators. In cases where analytical data showed signs of being unusual, or otherwise deviating from what is normally found in reports, they were discussed with the participant and in many cases verified. In some cases data were withdrawn.

Most of the participants had reported information from their analytical quality control (AQC) programmes, i.e. results from the analysis of certified reference materials (CRMs) and from participation in proficiency testing (PT) programmes. These results were used to validate the occurrence data. All AQC-data are found in ***Annex A.***

The participants also submitted information on the methods of analysis. A large array of methods was used. Samples were mostly wet digested using mineral acids, either in closed vessels under pressure or open vessels at atmospheric pressure. Dry ashing was also utilised by some laboratories. The four elements were mostly determined by atomic absorption spectrometry (AAS), generally using graphite furnace techniques for Cd and Pb and vapour generation techniques for As and Hg. Many, but not all, laboratories reported the use of background correction during the analysis. Inductively coupled plasma – mass spectrometry (ICP-MS) was used by some laboratories. In PT certain foods, e.g. potatoes, were analysed with methods having extremely high detection limits ($\leq$1 mg/kg). Since half of that limit is used as the occurrence level for the intake calculation, intake may erroneously appear to be very high. All method descriptions are found in ***Annex A.***

The information submitted to the co-ordinators is in most cases freely accessible via reports or international publications. The references to available reports are found in ***Annex A.*** Information on occurrence, consumption and intake data for arsenic, cadmium, lead andmercury, as submitted by the Member States is found in ***Annex B***.

1.7 Limiting factors

During the course of the project several factors were identified that will affect the interpretation of the result of the SCOOP-project. The most important factors are listed below.

Missing data.
During the collection of occurrence data for the various foodstuffs it became clear that the Member States has no common approach for the acquisition of necessary analytical data. DK and the UK had sufficient occurrence data for a full intake study, whereas all other Member States were lacking data for some, or most, food groups.

Skewed food groups.
When food groups only contain a single, or a few, food items the intake calculation can be severely distorted by a food item with an unusually high/low level of the analyte and being consumed in small/large quantities.

Quality of submitted data.
In many cases unusually high (in some cases unusually low) occurrence data were not verified by submitted AQC-data. Unreliable occurrence data can result in both over- and underestimation of the intake of toxic elements.

Limit of detection.
For the purpose of intake calculations it was generally agreed to assign results below the LOD half of that value (e.g. <0.05 = 0.025). Some Member States, however, used other interpretations. In the UK, available data are calculated as equal to the LOD (e.g. <0.05 = 0.05). Denmark uses the the mean value of the actually measured individual determinations below the LOD. As a result some intake calculations may be under- or over-estimated. It also adds to the general uncertainty of the intake estimates.

Estimation of consumption.
The comparability of the exposure data is hampered by several factors, e.g. type of food consumption data, representativity of population studied, period of collection of analytical data and missing data. The method used for measuring food consumption influences the quality and reliability of data and also affects the interpretation of intake estimations. In many instances food consumption is underestimated, when methods such as dietary records, 24 h recall and fixed food frequency questionnaires are used.

1.8 Conclusions from SCOOP task 3.2.11

Arsenic. Fish and other seafood is the main source of As in the diet of the mean adult population. The daily intake from fish and other seafood is estimated to be below 0.35 mg (<2.5 mg/week). Marine species of fish may have As-levels more than ten times higher than that in fish from e.g. brackish water. Fish and other seafood contribute more than 50% to the mean intake. Consumers of fish and other seafood may reach an intake of 1 mg/day (7mg/week), or more. No data on the level of inorganic As in fish and other food is presently available.

Children have a lower intake than adults, according to data from FR and DE, and young children (4-6 years) have the lowest intake. Since children have lower body weights, their body burden/kg may, however, be higher than that of adults.

Cadmium. None of the most consumed foodstuffs are generally high in Cd. The intake by the mean adult population in the Member States is estimated to be less than 30% of the PTWI, with the exception of NL (38%). Cereals, fruit and vegetables, meat and fish are the main sources of cadmium in the diet, as they are highly consumed staple foods, even if the level of cadmium is generally low. Liver and kidney (especially equine) crustaceans, mollusc and cephalopods generally contain higher levels of cadmium. The contribution of offal and molluscs to the cadmium dietary mean intake is small, as the consumption is low. Regarding high level consumers of offals and molluscs, it is necessary to promote finalized study to assess the relative risk.

Children have a lower intake than adults, according to data from FR and DE, and young children (4-6 years) have the lowest intake. Since children have lower body weights, their body burden/kg may, however, be higher than that of adults.

Lead. None of the most consumed foodstuffs are generally high in Pb. The intake by the mean adult population in the Member States is estimated to be 0.042 mg/day (0.29 mg/week), which is equal to a mean of 17% of the PTWI. The intake in PT is considerably higher than the average (54% of the PTWI). This high intake is strongly influenced by use of inappropriate analytical methods resulting in very high LODs. In e.g. IR, the intake is underestimated (0.4% of the PTWI) since occurrence data were available only from a few food items.
Specific foodstuffs from some Member States were reported to contain very high lead levels. If these high occurrence levels are confirmed, or the sampling found to be representative, consumers in these Member States may be at risk of exceeding the PTWI.

Children have a lower intake than adults, according to data from FR and DE. Young children (4-6 years) have the lowest intake. Since children have lower body weights, their body burden/kg may, however, be higher than that of adults. In DE the body burden for children aged 4-6 years is 1µg/bodyweight/day (35% of PTWI), whereas the body burden for adults is 0.6 µg/kg bodyweight/day (19% of PTWI). Children who are high consumers of certain foodstuffs may run a risk of exceeding the PTWI.

Mercury. Fish is the main source of Hg in the diet, followed by fruit and vegetables. The daily intake of total Hg by the mean adult population is estimated to be below 0.015 mg/day. Six Member States presented mercury intake data on fish products only. No data was available for organic mercury-species (i.e. Methylmercury). Predatory fish species generally contain higher levels of mercury. However, the contribution of these foods to the dietary mean intake is small, since the consumption is low. Two Member States has reported high intakes from fruit and vegetables. These intakes, however, also include data from mushrooms and dried products which may increase the mean content in this food group more than relevant.

Regarding high level consumers of these products, it is necessary to promote finalized study to know the consumption of the most contaminated foods for the higher consumers groups.

Children have a lower intake than adults, according to data from FR and DE, and young children (4-6 years) have the lowest intake. Since children have lower body weights, their body burden/kg may, however, be higher than that of adults and intakes may appear to exceed the PTWI for methylmercury in 4-6 years old. However, the data submitted were for total mercury and the relative proportions of methylmercury to the total mercury in the different foods need further investigations. This would allow for more accurate intake estimates in relation to methylmercury.

The Member States lack a common, co-ordinated, approach for the analysis of foodstuffs and collection of validated results for the purpose of establishing background data for intake calculation/estimation.

A large number of confounding factors were identified during the work on the project. These confounding factors may artificially increase the intake levels considerably, or they may reduce the intake levels. The interpretation of the results from this project must therefore be viewed with caution.

Commission regulation 466/2001. In some foodstuffs occurrence data are occasionally exceeding the ML. Exceedings give the appearance of being sporadic rather than systematic.

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1.10 Glossary

AQA	analytical quality assurance
CRM	certified reference material
CV-AAS	cold vapour - atomic absorption spectrometry
DA	dry ashing
ETA-AAS	atomic absorption spectrophotometry-electrothermal atomization
FAAS	flame atomic absorption spectrometry
GC- QFAAS	gas-chromatography-quartz furnace atomic absorption spectrometry
GC-MS	gas-chromatography-mass-spectrometry
GF-AAS	graphite furnace - atomic absorption spectrometry
HG-AAS	hydride generation – atomic absorption spectrometry
ICP-AES	inductively coupled plasma - atomic emission spectrometry
ICP-MS	inductively coupled plasma - mass spectrometry
LOD	limit of detection
LOQ	limit of quantification
PT	proficiency testing
PTDI	provisional tolerable daily intake
PTWI	provisional tolerable weekly intake
SCF	scientific committee for food
SCOOP	scientific co-operation on questions relating to food (directive 93/5/EEC)
VM	voltammetric methods
WG	wet digestion

5. DIETARY INTAKE OF MERCURY

5.1 Toxicology

Mercury is a toxic element found mostly in fish and fishery products. Methylmercury, the main form in which mercury is present in seafood is the most toxic among mercury species. The methylmercury content in fish and shellfish varies, but it is generally assumed that over 90% is in the form of methylmercury. It may induce alterations in the normal development of the brain of infants and may, at higher levels, induce neurological changes in adults. Children exposed to methyl mercury prior to birth may experience negative effects on their mental development. Therefore, the levels of mercury and methylmercury in food should be as low as reasonably achievable, (taking into account that for physiological reasons certain fish species concentrate mercury more easily in their tissues than others).(ref.1-7)

5.2 Recommendations on intake limitations

A PTWI of 0.005 mg/kg (5 µg/kg) bodyweight have been decided for total mercury. This is equal to 0.35 mg/week (350 µg/week) for a person weighing 70 kg. The average intake of total mercury by an adult in the Member States is, according to current information, 5.53 µg/day, which is equal to 38.7 µg/week.

Table 5. 1. Mercury. Consumption of food in g/day by the mean adult population in the Member States. The figures are based on products for which occurrence data are available.

Food	BE	DK	FI	FR	DE	HE	IR	IT	NL	NO	PT	SE	UK
Milk, milk products	238	357				112							281
Condensed and milk powder, cheese, yoghurt		33			41								60
Fats and oils		48			21								27
Edible ice													
Fruits and vegetables		421		353	352	0.5*			360				379
Confectionary		30			5.9								
Cereals and bakery wares		217		63**	188	23			220				209
Meat		136			175	37	88						88
Offal						1.6	0.87				2.2		1
Fishmeat	13	23	53	30	16	36	20	32	10	70	40	30	14
Bivalves, crustaceans and cephalopods	1.8			4.7	0.8	5.2	0.05			10	10		
Eggs		21			33								14
Sweeteners					13						31		63
Salt and spices				9.3	2.3				79				
Beverages		2003		1091	376								937
Ready to eat													2
Composite food									282				
Sum	**253**	**3289**	**53**	**1551**	**1227**	**215**	**109**	**32**	**951**	**80**	**83**	**30**	**2075**

* dried fruit. ** excluding bakery wares

In its sixtieth meeting in Rome, (10-19 June 2003), JECFA established a new PTWI-value for methylmercury, corresponding to 1.6 µg/kg bw, which covers also pregnant women and their fetuses (the previous value was 3.3 µg/kg bw, and did not protect this risk group).

5.3 Intake of mercury by the mean adult population

Thirteen Member States submitted data for the mean adult population (BE for 14-18 year olds). In addition, several Member States submitted data for other population groups (Table 1.1) The Tables 5.2 - 5.4 report the intakes for 13 food categories.

Table 5.2 Mercury daily intake (µg/day). Mean Adult population.

Food	BE	DK	FI	FR	DE	HE	IR	IT	NL	NO	PT	SE	UK	Mean
Milk and dairy products	0.13	0.38			0.165								0.23	**0.23**
Fats and oils		0.02			0.12								0.08	**0.07**
Fruits and vegetable		0.61		3.49	3.27				1.05				0.29	**1.74**
Cereals and bakery ware		0.58		1.16 **	1.32				0.42				0.62	**0.82**
Meat and offal		0.20			1.62		0.42				0.09		0.21	**0.51**
Fish and fish products	2.53	0.96	6.2	2.73	2.80	4.51	0.92	8.6	0.19	3.34	13.1	2.7	1.00	**3.81**
Bivalves, cephalopoda, crustaceans, squid	0.12			0.15	0.02	0.66	0.03			0.72	0.80			**0.36**
Eggs		0.03			0.17								0.02	**0.07**
Sweeteners					0.05						0.39		0.19	**0.21**
Salts, spice				0.49	0.02				0.09					**0.2**
Beverages		0.73		0.45 *	0.36*								0.37	**0.46**
Ready to eat													0.01	**0.01**
Composite food									0.04					**0.04**
Sum	**2.78**	**3.5**	**6.2**	**8.48**	**9.91**	**5.17**	**1.37**	**8.6**	**1.79**	**4.06**	**14.4**	**2.7**	**3.02**	**5.53**

* Including drinking water. ** Excluding bakery ware

No Country reports intake data for all the food categories. DE presents the higher number of food categories (11/13), IT and SE the lower (1/13).

Table 5.3 Mercury. Weekly intake (µg/week). Mean Adult population.

Food	BE	DK	FI	FR	DE	HE	IR	IT	NL	NO	PT	SE	UK	Mean
Milk and dairy products	0.88	2.66			1.15								1.61	**1.57**
Fats and oils		0.14			0.86								0.56	**0.52**
Fruit and vegetable		4.27		24.4	22.9				7.35				2.03	**12.2**
Cereals and bakery ware		4.06		8.15* *	9.21				2.94				4.34	**5.74**
Meat and offal		1.40			11.4		2.94				0.63		1.47	**3.56**
Fish	17.7	6.72	43.4	19.1	19.6	31.6	6.44	60.2	1.33	23.4	91.7	18.9	7.00	**26.7**
Bivalves, cephalopods, crustaceans, squid	0.83			1.06	0.12	4.62	0.21			5.04	5.6			**2.50**
Eggs		0.21			1.17								0.14	**0.51**
Sweeteners					0.35						2.73		1.33	**1.47**
Salts and spices				3.44	0.14				0.63					**1.4**
Beverages		5.11		3.12*	2.52								2.59	**3.26**
Ready to eat													0.07	**0.07**

Composite food									0.28					**0.28**
Sum	**19.4**	**24.5**	**43.4**	**59.3**	**69.4**	**36.2**	**9.59**	**60.2**	**12.6**	**28.4**	**101**	**18.9**	**21.1**	**38.7**

* Including drinking water. ** Excluding bakery wares

Table 5.4 Mercury. Weekly Intake in % PTWI, by the Mean Adult Population*

Food	**BE**	**DK**	**FI**	**FR**	**DE**	**HE**	**IR**	**IT**	**NL**	**NO**	**PT**	**SE**	**Mean**
Mean body weight	**60**	**72**	**77.1**	**66.4**	**70.5**	**70**	**75**	**70**	**65.8**	**73**	**70**	**73.7**	**70.3**
Milk and dairy products	0.29	0.74			0.33								**0.45**
Fats and oils		0.04			0.24								**0.14**
Fruit and vegetable		1.19		7.36	6.49				2.23				**4.32**
Cereals and bakery ware		1.13		2.46	2.62				0.89				**1.78**
Meat and offal		0.39			3.22		0.78				0.18		**1.14**
Fish	5.90	1.87	12.0	5.76	5.56	9.02	1.72	17.2	0.40	6.41	26.2	5.13	**8.10**
Bivalves, cephalopods, crustaceans, squid	0.28			0.32	0.04	1.32	0.06			1.38	1.6		**0.71**
Eggs		0.06			0.33								**0.19**
Sweeteners					0.10						0.78		**0.44**
Salts e spice				1.04	0.04				0.19				**0.42**
Beverages		1.42		0.85	0.72								**1.00**
Ready to eat													
Composite food									0.09				**0.99**
Sum	**6.47**	**6.81**	**12.1**	**17.78**	**19.7**	**10.3**	**2.56**	**17.2**	**3.8**	**7.79**	**28.8**	**5.13**	**18.78**

*UK uses consumer intake estimates for comparison with safety guidelines.

The values of the sum of total mercury intakes, for all countries, are in the range 9.6 µg/week (IR, 3 food categories), and 100.7 µg/week (PT, 4 food categories). This corresponds to 2.56% – 28.8%) of the PTWI, assuming an average weight of 70 kg for a Member States adult. Eleven countries have mercury levels less than 60.3 µg/week, while 2 countries (DE, PT) have respectively 69.4 µg/week and 100.7 µg/week. Regarding the intake for drinking water, it was calculated out of the intakes sum. Two countries present water intake data: FR (0.29 µg/week), DE (0.28 µg/week, including the consumption of mineral water)

The mean intake of methylmercury from fish, bivalves, cephalopods, crustaceans and squid is specified in tables 5.2 – 5.3. These data can be used to calculate the intake of methylmercury in relation to the PTWI of 1.6 µg/kg body weight/week for methylmercury (WHO, 2003). The mean intake of mercury from fish and seafood is 29.2 µg/week, taking the mean values for all countries according to Table 5.3. If it is assumed that all of the mercury present in fish is present as methylmercury, the mean intake corresponds to 26% of the PTWI for methylmercury for a person with a body weight of 70 kg. In Tables 5.28 and 5.29 daily mercury intake in consumers only, mean and high level, reported by the UK are shown. From these data it can be calculated that in UK, consumers only, methylmercury intake from fish and shellfish corresponds to 13% of the PTWI for methylmercury. For consumers only, high level, methylmercury intake from fish and shellfish corresponds to 41% of the PTWI for methylmercury. In NO the methylmercury intake by mean consumers corresponds to 73% of the PTWI for methylmercury, whereas for high consumers, methylmercury intake is more than twice the PTWI for methylmercury (e.g. (11.0+1.35 µg/day) x 7/118 = 0.73; (34.06+4.25) x 7/118 = 2.25). The method used in the Norwegian intake calculation (i.e. intake based on single

point estimates for consumption of each of the relevant foods combined with single point estimates for Hg-concentration in those foods) is known to overestimate the intake, in particular the high-level intakes. However, the results from the SCOOP task indicate that there is a risk that population-groups with a high consumption of fish and seafood may have intakes of methylmercury that are close or even exceed the PTWI of 1.6 µg/kg body weight/week

5.4 Intake of mercury by children: Mean population

Intake data were reported by FR and DE (BE reported intake data for 14-18 year olds, but they are included in the tables for the mean adult population). The data are shown in Table 5.5, together with data on their percentage of the PTWI for total mercury. Since children have a lower body mass, their body burden per kg bodyweight will generally be larger than that for adults.

The total mercury dietary intake for children in FR is 41.02 µg/week**,** corresponding to 25.96% of the PTWI (31.6 kg x 5 = 158 µg/week). The dietary intake of the mean adult population in France is 59.4 µg/week, corresponding to 17.88% of the PTWI. The mercury dietary intakes for two children groups in DE are 38.95 and 52.55 µg/week**,** corresponding respectively to 37.15% and 25.66% of the PTWI (21 kg x 5 = 105 µg/week-age 4-6 years; 41 kg x 5 = 205 µg/week-age 10-12 years). The dietary intake of the mean adult population in Germany is 69.37 µg/week, corresponding to 19.7 % of the PTWI.

The intake of mercury from fish and shellfish can also be compared with the PTWI for methylmercury. For a 4-6 year-old child weighing 21 kg, the PTWI for methylmercury corresponds to 33.6 µg. Similarly, for a 10-12 year-old child the PTWI for methylmercury

Table 5.5. Total mercury. Intake by children in various age brackets. Mean Population.

	Daily intake, µg			**Weekly intake, µg**			**% of PTWI**		
	Age bracket, year			Age bracket, year			Age bracket, year		
	3-14	4-6	10-12	3-14	4-6	10-12	3-14	4-6	10-12
Food	**FR**	**DE**	**DE**	**FR**	**DE**	**DE**	**FR**	**DE**	**DE**
Milk and milk products									
Condensed, powder milk, cheese, yoghurt		0.081	0.092		0.567	0.637		0.54	0.31
Fats and oils		0.076	0.106		0.532	0.742		0.51	0.36
Fruits and vegetables	2.16	1.81	2.39	15.12	12.67	16.74	9.57	12.11	8.17
Cereals and bakery wares	1.45	0.907	1.24	10.15	6.349	8.68	6.42	6.05	4.23
Meat		0.80	1.267		5.6	8.87		5.33	4.33
Offal		0.004	0.008		0.028	0.056		0.03	0.027
Fish and fish products	1.70	1.273	1.739	11.9	8.91	12.17	7.53	8.48	4.86
Bivalve, crustaceans and cephalopods	0.06	0.004	0.005	0.42	0.028	0.035	0.26	0.03	0.017
Eggs		0.107	0.128		0.75	0.896		0.71	0.44
Sweeteners		0.033	0.036		0.23	0.254		0.21	0.12
Salt and spices	0.34	0.012	0.016	2.38	0.084	0.111	1.51	0.018	0.054
Beverages	0.147	0.453	0.478	1.03	3.169	3.345	0.65	3.02	1.63
Sum	**5.86**	**5.56**	**7.51**	**41.02**	**38.95**	**52.55**	**24.4**	**37.15**	**25.66**

corresponds to 65.6 µg. Using the data from FR and DE in Table 5.5, the percentage of PTWI for methylmercury for children is 26% and 19% for children aged 4-6 and 10-12 years, respectively (as a worst case assuming that all mercury is methylmercury).

Intake data in Table 5.30, shows daily mercury intake in children, consumers only, mean or high level,or mean population, high level. Using these data for comparison with PTWI for methylmercury, gives that PTWI is reached or exceeded in children (e.g. for 10-12 year-old children; 9.64 x 7/65.6).

5.5 Legislation

In Table 5.6 the MLs for mercury, as defined in The Commission Regulation (EC) No 466/2001, are compared with availabe occurrence data from the Member States. The occurrence data were collated to give as realistic a picture as possible. They are to some extent an approximation based on many data sets and do not claim to be an "absolute" truth.

Table 5.6. Mercury. Maximum Levels (ML) in mg/kg, as defined in Commission Regulation (EC) No 466/2001, and compared with occurrence data from the Member States.

Product	ML	BE	DK	FI	FR	DE	HE	IR	IT	NL	NO	PT	SE	UK
3.3.1	**0,5**			0.024-0.255 <0.005/ 1.35	0.060 <0.00003 /0.857		<0.01-0.286 0.0015/ 3.70	0.005-0.34 <0.01/ 0. 34*	0.07-0.27 0.05/ 0.42	0.01-0.14 0.005/ 0.56	<0.05-0.278 0.01/ 3.14		0.16 0.01/ 1.26	
3.3.1.1	**1.0**			0.16-0.412 <0.01/ 0.849	0.381 <0.004/4. 30		0.377 0.268/ 0.432	0.030-0.1667 0.030/ 0.55**	0.21-0.45	0.019-0.28 0.22/ 0.77	0.01-0.598 0.03/ 3.98		0.35 0.01/ 2.2	
Fish. Mean Min/max		0.189 <0.01/ 2.12	0.052 0.011 /0.20			0.173 <0.001/5.8						0.323 0.01/ 1.66		0.016-0.129 0.001/ 0.49
Bivalves, Cephalopods Mean Min/max	**0.5**	<0.01/ 0.22		0.024 <0.001/ 0.325		0.029 <0.001/0.66						0.0795 0.01/ 0.19		
Crustaceans Mean Min/max	**0.5**	0.065 <0.01/ 0.159		0.041 0.030/ 0.065										

*IR. One sample of butterfish: 1.05 mg/kg. **IR. One sample of smoked fish: 1.26 mg/kg

5.6 Comments on the mean adult population intake of total mercury by Member State:

This section only reports the mean intake of the adult population. Particular findings of interest are highlighted. Consumers, high-risk groups or particular age-segments are not included. A brief comment of the result from each Member State is given. Tables 5.7 – 5.26 provides additional information.

BELGIUM

Estimated intake of mercury: data for 3 food catagories; the most important is fish (17.69 µg – 5.90% PTWI). The sum of the mercury intakes of food categories is 19.4µg/week, corresponding to the 6.47 % of the PTWI. The intake is based on the occurence of mercury in dairy products, fish and crustaceans. The sum of these food groups intake is 2.78µg/day. Fish represents 91% of this value.

Analytical Quality Assurance

Certified reference materials have been used extensively as well as participation in proficiency tests. The results showed good correlation beetween found and certified results.

DENMARK

Estimated intake of mercury: data for 8 food categories. The most important are fish (6.72µg –1.87 % PTWI), beverages (5.11 µg – 1.42%PTWI), fruits and vegetables (4.27µg –1.19 %PTWI), cereals and bakery wares (4.06µg –1.13% PTWI). The sum of the mercury intakes of food categories is 24.5 µg/week, corresponding to 6.81 % of the PTWI. The intake is based on the occurrence of mercury in milk, cheese, fats, vegetables, fruits, confectionary, cereals and bread, meat and meat products, fish, eggs and beverages. Total dietary mercury intake was 3.5 µg/day. Fish, beverages and cereals/ bread represent of the total intake about 55%.

Analytical Quality Assurance

Certified reference materials were analysed in parallel to the samples

FINLAND

Estimated intake of mercury: Mercury intake for fish is 43.4µg/week of mercury, corresponding to 12.06 % of the PTWI. The intake is based on the occurence of mercury in several fish species. The sum of these fish species was 6.2 µg/day. The highest contribution to is provided by pike (30.4%).

Analytical Quality Assurance

Certified reference materials and proficiency tests were used but not reported.

FRANCE

Estimated intake of mercury: data for 6 food categories. The most important are: fruits&vegetables (24.45 µg/week – 7.36% PTWI), fish (19.12 µg/week –5.76% PTWI).cereals excluding bakery wares (8.15 µg/week – 2.46% PTWI), Salt and spices(3.44 µg/week –1.04% PTWI). The sum of the mercury intakes of food categories is 59.34 µg/week, corresponding to 17.88 % of the PTWI. The intake is based on the occurence of mercury in fruits and vegetables, mushrooms, cereals and cereal products, fish and fish products, molluscs and cephalopodes, crustaceans, salts, spices, sauces, water, soft beverages and alcoholic beverages. The sum of these food groups intake was 8.48 µg/day. The highest contribution to this value is provided by fruits and vegetables (26.2%), fish and fish products (18.9% + 13.3 % for 3.3.1.1.of regulation 466/2001 + 0.67 % for Molluscs and cephalopods + 1.11% for Crustaceans and echinoderm = 34 % for all the fish and fish products) and mushrooms (15%).

Analytical Quality Assurance

Certified reference materials have been used extensively as well as participation in proficiency tests The results showed a good correlation beetween found and certified results.

GERMANY

Estimated intake of mercury: data for 11 food categories. The most important are: fruits&vegetables (22.86 µg - 6.48% PTWI), fish (19.6 µg –5.56% PTWI). Cereals and bakery wares (9.21 µg – 2.62% PTWI), meat and offal 11.34µg –3.22% PTWI). The sum of the mercury intakes of

food categories is 69.37µg/week, corresponding to 18.68% of the PTWI. The intake is based on the occurence of mercury in cheese, eggs, meat, fish, bivalves, crustaceans, cereals, nut and seeds, fruit and vegetables, dried fruit and vegetables, mushrooms, wine, honey, herbs and spices, sweeteners, game, liver and kidney, concentrated tomato, milk powder, oil, sugar, salt, water. The sum of these food groups intake was 9.91 µg/day. The highest contribution to this value is provided by vegetables, including fungi (33%).

Analytical Quality Assurance

Certified reference materials have been used extensively as well as participation in proficiency tests. The results showed a good correlation beetween found and certified results.

GREECE

Estimated intake of mercury: data for 2 food categories: fish (31.57 µg –9.02% PTWI), bivalve + crustaceans + cephalopoda (4.62 µg –1.32% PTWI). The sum of the mercury intakes of food categories is 36.19 µg/week, corresponding to 10.34 % of the PTWI. The intake is based on the occurence of mercury in fish, molluscs and crustaceans. The sum of this food groups intake was 5.17 µg/day. Fish of Reg. 466/01 is about the 50% of the sum.

Analytical Quality Assurance

Laboratories have participated in proficiency tests programs; results regarding use of certified reference materials are reported

IRELAND

Estimated intake of mercury: data for 3 food categories. The most important is fish (6.44 µg – 1.72% PTWI) The sum of mercury intake of food categories is 9.59 µg/week, corresponding to 2.56 % of the PTWI. The intake estimated on the basis of the occurence of mercury is 1.37 µg/day in fish, molluscs, crustaceans, meat and offals. Fish represents 67.2% of this value.

Analytical Quality Assurance

Laboratories have participated in proficiency tests programs; results regarding use of certified reference materials are reported.

ITALY

Estimated intake of mercury: only data for fish: (60.2 µg/week of mercury,), corresponding to 17.2 % of the PTWI. The intake is based on the occurence of mercury in fish and molluscs. The sum of this food groups intake was 8.6 µg/day. Fish of Reg. 466/01 represents 58% of this value.

Analytical Quality Assurance

Certified reference materials have been used as well as participation in proficiency tests. No data regarding correlation beetween found and certified results are reported.

the NETHERLANDS

Estimated intake of mercury: data for 5 food categories. The most important is: fruits&vegetables (7.35 µg –2.23 %PTWI), The sum of the mercury intakes of food categories is 12.6 µg/week, corresponding to 3.8 % of the PTWI. The intake is based on the occurence of mercury in fruits, vegetables, nuts, cereals, bakery wares, fish and fish products, salt, spices, soups, sauces and composite foods. The sum of this food groups intake was 1.79 µg/day. Fruits, vegetables and nuts represent about the 60% of the sum.

Analytical Quality Assurance

Certified reference materials were analyzed in parallel to the samples, as well as participation in proficiency tests. No data regarding correlation beetween found and certified results are reported.

NORWAY

Estimated intake of mercury: data for 2 food categories: fish (23.4µg –6.3% PTWI), bivalve+crustaceans+cephalopoda (5.04µg –1.38% PTWI). The sum of mercury intake of food categories is 28.4µg/week corresponding to 7.79 % of the PTWI. The intake is based on the occurence of mercury in several fish species. The sum of these fish species intake was 4.06 µg/day. Lake trout represents 20.5% of this value.

Analytical Quality Assurance

Certified reference materials have been used as well as partecipation in proficiency tests. No data regarding correlation beetween found and certified results are reported.

PORTUGAL

Estimated intake of mercury: data for 4 food categories. The most important are fish (91.7µg –26.2 % PTWI), bivalve +crustaceans+cephalopoda (5.6 µg –1.6% PTWI). The sum of mercury intake of food categories is 100.66 µg/week, corresponding to 28.76 % of the PTWI. The intake is based on the occurence of mercury in liver, sugar, fresh fish and molluscs. The sum of this food groups intake was 14.38 µg/day. Fresh fish represent 91.6%.

Analytical Quality Assurance

Certified reference materials have been used as well participation in proficiency tests. Methods validated.

SWEDEN

Estimated intake of mercury: only data for fish: (18.9µg/week of mercury,), corresponding to 5.13 % of the PTWI. The intake is based on the occurence of mercury in several fish species. The sum of these fish species intake was 2.7 µg/day. The highest contribution to this value is provided by cod type fish represent 22.6% of the sum.

Analytical Quality Assurance

Certified reference materials have been used extensively as well as participation in proficiency tests. The results showed a good correlation beetween found and certified results.

UNITED KINGDOM

Estimated intake of mercury: data for 10 food categories. The most important categories are: fish (7 µg), cereals and bakery wares (4.34 µg). The sum of the mercury intakes of food categories is 21.14 µg/week. The intake is based on total diet study. Total population intake was 3.02 µg/day. The highest contribution to the intake is provided by fish (33%).

Analytical Quality Assurance

Certified reference materials have been used extensively as well as participation in proficiency test. The results showed a good correlation beetween found and certified results.

5.7 Comments on total mercury in specific food groups

All specific results are shown in tables 5.7 – 5.26 The comments are intended to highlight particular/unusual findings.

Table 5.7. Mercury in Dairy products, excluding products of category 2: Milk (Cat. 1.1-1.5)
No data for AU, FI, FR, DE, HE, IR, IT, NL, NO, PT, SP, SE.
BE: Total dairy products. FR: dairy products The mean mercury intake was in the range 0.11 µg/day (UK) – 0.35 µg/day (DK). DK presented the only high level intake value: 0.36 µg/day.

Table 5.8. Mercury in Dairy products, excluding products of category 2: Cheese (Cat. 1.6)
No data for AU, BE, FI, FR, HE, IR, IT, NL, NO, PT, SP, SE. The mean mercury intake was in the range 0.03 µg/day (DK) – 0.165 µg/day (DE). DE presented the only high level intake value: 0.446 µg/day

Table 5.9. Mercury in Fats and oils (Cat. 2)
No data for AU, BE, FI, FR, ,HE, IR, IT, NL, NO, PT, SP, SE. The mean mercury intake was in the range 0.02 µg/day (DK) – 0.123 µg/day (DE). DE presented the only high level intake value: 0.304 µg/day

Table 5.10. Mercury in Fruit (Cat. 4.1)
No data for AU, BE, FI, HE, IR, IT, SP, SE. FR and NL presented intake value referred to total Vegetables +total Fruits, (respectively 2.22+ 1.27 for mushrooms, and 1.05 µg/day. The mean mercury intake was in the range 0.05 µg/day (NO) – 3.49 µg/day (FR). FR and DE presented high level intake (respectively 4.43+ 8.34 for only mushrooms, and 0.585 µg/day). FR and NL: fruits and vegetables.

Table 5.11. Mercury in vegetables incl. mushrooms & fungi, roots, tubers, pulses, legumes, nuts and seeds: (Cat. 4.2).
No data for AU, BE, FI, FR, HE, IR, IT, NL, NO, PT, SP, SE. The mean mercury intake was in the range 0.21 µg/day (UK) – 3.27µg/day (DE).

Table 5.12. Mercury in Confectionary (Cat. 5)
No intake data for all countries.

Table 5.13. Mercury in Cereals and cereal products, incl. flours & starches from roots & tubers, pulses & legumes, excluding bakery (Cat. 6)
No data for AU, BE, FI, HE, IR, IT, NO, PT, SP, SE. DK and DE presented intake value referred to Cereals & Bakery Wares. The mean intake was in the range 0.12 µg/day (NL) – 1.32 µg/day (DE). FR and DE presented high level intake (respectively 3.04, and 2.40 µg/day. DK: cereals+bread, total. DE: cereals+bakery wares.

Table 5.14 Mercury in Bakery Wares (Cat 7)
Data only for NL, UK. The mean intake was, 0.30 µg/day for NL and 0.22 µg/day for UK.

Table 5.15. Mercury in Meat and meat products, including poultry and game (Cat. 8).

No data for AU, BE, FI, FR, HE, IT, NL, NO, PT, SP, SE. The mean mercury intake was in the range 0.20 µg/day (DK) – 1.62 µg/day (DE). IR: meat + offals.

Table 5.16 Mercury in Offals (Cat. 8).
No data for AU, BE, DK, FI, FR, HE, IT, NL, NO, SP, SE. The mean mercury intake was in the range 0.087 µg/day (PT) – 0.01 µg/day (UK, DE). DE presented the only high level intake value: 0.09 µg/day

Table 5.17. Mercury in Fish and fish products, including molluscs, crustaceans and echinoderms (MCE) (Cat. 9)
No data for AU, SP, DK and DE presented intake value referred to Fish incl. 3.3.1.1 Reg. 466/2001. The mean intake was in the range 0.19 µg/day (NL) – 13.1 µg/day (PT). BE, FR DE, IR, NO presented high level intake (respectively 9.02, 13.12, 10.695, 3.5, 16.08 and µg/day). FR: included 3.3.1.1 reg. 466/2001 (8.16µg/day). HE: included reg. 466/2001 (2.58µg/day). IT: included reg. 466/2001 (5µg/day).

Table 5.18. Mercury in Bivalve molluscs
No data for AU, BE, DK, FI, NL, NO, SP, SE. FR, HE, IT presented intake value referred to Bivalve Molluscs & Cephalopodes. DE presented intake value referred to Bivalve Molluscs & Crustaceans. The mean intake was in the range 0.023µg/day (DE) – 0.60 µg/day (UK). FR, DE, HE, NL, and PT presented high level intake in the range 0µg/day (IT) –0.803 µg/day(PT). FR and IT: bivalves molluscs + cephalopodes. DE: bivalve molluscs + crustaceans. HE: fresh bivalve molluscs + fresh cephalopodes

Table 5.19 Mercury in Crustaceans
No data for AU, DK, FI, DE, NL, PT, SP, SE, UK. The mean mercury intake was in the range 0.09µg/day (FR) – 0.724 µg/day (NO). BE, FR, HE, IR, NO presented high level intake in the range 0.29 µg/day (IR) –4.17 µg/day(HE).

Table 5.20. Mercury in Egg and egg products (Cat.10)
No data for AU, BE, FI, FR, HE, IR, IT, NL, NO, PT, SP, SE. The mean intake was in the range 0.03µg/day (UK) – 0.167 µg/day (DE). DE presented the only high level intake value: 0.405 µg/day

Table 5.21. Mercury in Sweteners incl. honey (Cat 11)
Data only for DE, UK. The mean mercury intake was 0.051 µg/day for DE and 0.19 µg/day for UK..

Table 5.22. Mercury in salt, spices, soups, sauces, salads, protein products, etc (Cat 12)
No data for AU, BE, DK, FI, HE, IR, IT, NO, PT, SP, SE, UK. The mean mercury intake was in the range 0.09µg/day (NL) – 0.49 µg/day (FR). FR and DE presented high level intake (respectively 1.23 and 0.05 µg/day. FR: excluding soups

Table 5.23. Mercury in Non-alcoholic ("soft") beverages (Cat. 14.1)
No data for AU, BE, FI, HE, IR, IT, NL, NO, PT, SP, SE. The mean intake was in the range 0.18µg/day (FR) – 0.73 µg/day (DK). FR and DE presented the only high level intake value: 0.46 µg/day (FR), 0.84 µg/day (DE). FR and DE presented values for water, respectively 0.042 and n.d?.

DK and UK: total beverages. FR and DE: excluded water. FR: 556g/day – 0.042 µg/day. DE: 260g/day – 0.049 µg/day including mineral water.

Table 5.24. Mercury in Alcoholic beverages, incl. alcohol-free and low-alcoholic counter (Cat. 14.2)
FR and DE presented the mean mercury intake values (0.23 µg/day, FR - 0.117 µg/day, DE).

Table 5.25. Mercury in Ready to eat (Cat 15)
UK presented the only mean mercury intake value: 0.01 µg/day.

Table 5.26. Mercury in composite foods (Cat 16)
Only NL and NO presented mean mercury intake, respectively 0.04 and 4.06µg/day. NO presented the only high level mercury intake value: 18.47 µg/day.

Table 5.7. Mercury in Dairy products, excluding products of category 2: Milk (Cat. 1.1-1.5)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
BELGIUM	238.36	674.73	0.00053	0.127	0.360	5
DENMARK	357		0.0010	0.35		10.0
U. K.	281		0.0004	0.11		4

Table 5.8. Mercury in Dairy products, excluding products of category 2: Cheese (Cat. 1.6)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
DENMARK	33		0.0009	0.03		0.9
GERMANY	41.35	111.7	0,003-0.004	0.165	0.446	2.3
U. K.	60	175.50	0.002	0.12		4

Table 5.9. Mercury in Fats and Oils (Cat. 2)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
DENMARK	48		0.0004	0.02		0.6
GERMANY	20.53	50.7	0.006	0.123	0.304	1.1
U. K.	27		0.003	0.08		3

Table 5.10. Mercury in Fruit (Cat. 4.1)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
DENMARK	180		0.0017	0.31		8.8%
FRANCE*	349.2	695.7	0.006	2.22	4.43	26.2
FRANCE**	3.8	25.0	0.334	1.27	8.34	15
GERMANY	102.5	292.7	0.002	0.205	0.585	5.7
the NETHERLANDS	360		0.003	1.05		58
NORWAY	83.70	279.30	0.001	0.05		
PORTUGAL	78.10	287.50	0.001	0.06		
U. K.	113		0.001	0.08		2

* excluding mushrooms. ** mushrooms only

Table 5.11. Mercury in Vegetables incl. mushrooms & fungi, roots , tubers, pulses, legumes, nuts and seeds (Cat. 4.2)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
DENMARK	241		0.0012	0.30		8.5%
GERMANY	249.62	507.65	0.002-0.103	3.27	8.03	13.9
U. K.	266		0.00085	0.21		<8

Table 5.12.Mercury in Confectionary (Cat. 5)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
DENMARK	30		0	0		0
GERMANY	5.86	28.6				0.3

Table 5.13 Mercury in Cereals and cereal products, incl. flours & starches from roots & tubers, pulses & legumes, excluding bakery (Cat. 6)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
DENMARK	217		0.0027	0.58		16.5%
FRANCE	62.9	164.3	0.019	1.16	3.04	13.7
GERMANY	187.93	343.15	0.007	1.316	2.402	10.5
the NETHERLANDS	42		0.003	0.12		7
U. K.	101		0.004	0.4		13

Table 5.14. Mercury in Bakery Wares (Cat 7)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
the NETHERLANDS	178		0.002	0.30		17
U. K.	108	261.30	0.002	0.22		7

Table 5.15. Mercury in Meat and meat products, including poultry and game (Cat. 8).

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
DENMARK	136		0.0015	0.20		5.7%
FRANCE	153.7	291.4				
GERMANY	174.96	389.4	0.004-0.012	1.615	3.64	9.7%
IRELAND	87	193	0.006	0.41	0.94	
U. K.	88		0.002	0.2		<7

Table 5.16. Mercury in Offals (Cat. 8)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
GERMANY	1.95	17.9	0.005	0.010	0.090	0.11
IRELAND	0.88		0.01	0.009		
PORTUGAL	2.185		0.04	0.0874		
U. K.	1		0.005	0.01		<1

Table 5.17. Mercury in Fish and fish products, including molluscs, crustaceans and echinoderms (MCE) (Cat. 9)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
BELGIUM	13.37	47.79	0.189	2.523	9.019	91
DENMARK	23		0.0417	0.96		27.4
FINLAND	53		0.035-0.380	6.2		100
FRANCE*	29.8	82.9 – 21.4	0.06-0.381	2.73	4.96 – 8.16	32.2
GERMANY	16.9	63.4	0.029-0.173	2.819	10.695	0.94
GREECE	18	71	0.108-0.143	4.513		87.18
IRELAND	23.31	74.86	0.07	0.96	3.5	
ITALY			0.10-0.33	8.6		100
the NETHERLANDS	10		0.019	0.19		11
NORWAY*	70.4	237.6	0.005-1.082	3.3374	18.48	82.1
PORTUGAL	40.5		0.32	13.10		
SWEDEN	30.1		0.02—0.23	2.7		100
U. K.	14		0.043	1.00		33

* excluding molluscs, crustaceans and echinoderms (MCE)

Table 5.18. Mercury in Bivalves molluscs

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
FRANCE*	2.4	16.4	0.024	0.06	0.40	0.7
GERMANY	0.78	1.9	0.029	0.023	0.055	0.04
GREECE	2.6	18	0.0234	0.06084	0.4212	1.18
IRELAND	0.084		0.02	0.002		
PORTUGAL	10.1		0.0795	0.0795	0.803	
U. K.	14.00	55.20	0.043	0.60		

* molluscs and cephalopods

Table 5.19. Mercury in Crustaceans

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
BELGIUM	1.83	12.75	0.065	0.119	0.829	4
FRANCE	2.3	14.3	0.041	0.09	0.58	1.1
GREECE	2.6	18	0.2318	0.60268	4.1724	11.64
IRELAND	0.57	2.59	0.09	0.05	0.29	
NORWAY	10	37	0.02-.185	0.724	2.396	17.9

Table 5.20. Mercury in Eggs and eggs products (Cat.10)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
DENMARK	21		0.0014	0.03		0.9
FRANCE	20.0	62.9				
GERMANY	33.42	81	0.005	0.167	0.405	1.9
U. K.	14		0.001	0.02		<1

Table 5.21. Mercury in Sweteners incl. honey (Cat 11)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
FRANCE	15.9	49.7				
GERMANY	13.020	54.050	<0.002-0.004	0,051	0.208	0.72
PORTUGAL	31.3		0.00125	0.391		
U. K.*	63		0.003	0.19		6

* Sugar and preserves

Table 5.22. Mercury in Salt, spices, soups, sauces, salads, protein products, etc (Cat 12)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
FRANCE*	9.3	23.3	0.053	0.49	1.23	5.8
GERMANY	2.26	6.0	0.003-0.011	0.020	0.048	0.13
the NETHERLANDS	79		0.001	0.09		5

* Excluding soups

Table 5.23. Mercury in Non-alcoholic ("soft") beverages (Cat. 14.1)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
DENMARK	2003		0.0004	0.73		20.8
FRANCE*	373.8	962.9	0.00048	0.18	0.46	2.1
GERMANY	68.89	290	n.d.	0.193	0.841	3.8
GERMANY*	329	1051	n.d.	0.193 0.242	0.841 0.605	3.8 18.2
U. K.	937		0.0004	0.37		12

* including water

Table 5.24. Mercury in Alcoholic beverages, incl. alcohol-free and low-alcoholic (Cat. 14.2)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
FRANCE*	159.9	628.6	0.00141	0.23	0.88	2.7
GERMANY*	46.95	222.2	<0.005	0.117	0.556	2.6

* only wine

Table 5.25. Mercury in Ready to eat (Cat. 15)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
U. K.	2		0.003	0.01		<1

Table 5.26. Mercury in composite foods (Cat 16)

Member State	Consumption (g/day)		Mean level in food (µg/g)	Intake (µg/day)		% of total dietary intake
	Mean level	High level		Mean l.	High l.	
the NETHERLANDS	282		0.0002	0.04		2
NORWAY				4.061*	18.474	100

5.8 Estimated daily intake of total mercury by other population groups

The UK is the only Member State that has complete intake studies for other population groups. The data from the UK and the available data from other Member States are presented in tables 5.27 – 5.30.

Table 5.27. Mercury Daily Intake (µg/day) by the Mean Adult Population.
High Level.

Food group	BE	FR	DE	HE	IR	NO
Milk and Dairy Products	0.36		0.445			
Fats and oils			0.30			
Fruit vegetable		4.43 – 8.34	33.15			
Cereals and Bakery Ware		3.04	2.52			
Meat and offal			3.65		0.96	
Fish	9.02	4.96 – 8.16	10.64	17.80	3.5	16.08
Bivalves, cephalopods and crustaceans	0.83	0.4 - 0.58	0.06	4.59	0.28	2.40
Eggs			0.405			
Sweeteners			0.07			
Salt and spices		1.23	0.05			
Beverages		0.09 – 0.46 – 0.88				

Table 5.28. Mercury Daily Intake (µg/day) by Consumers Only. Mean level.

Food group	BE	FR	DE	HE	IR	IT	NO	UK
Milk and milk products	0.132							0.09
Condensed, powder milk, cheese, youghurt			0.17					0.11
Fats and oils			0.12					0.05
Fruit and vegetables		2.22 – 6.41	17.2					0.30
Confectionary								0.05
Cereals and bakery wares		1.26	1.32					0.71
Meat			1.64		0.42			0.3
Offal			0.07		0.2			0.09
Fish and fish products	4.46	2.18 – 5.77	5.14	10.30	.1.41	8.6	11.0	1.44
Bivalves, cephalopods and crustaceans	0.60	0.31 – 0.61	0.42	9.44	0.7		1.35	0.6
Eggs								0.04
Sweeteners	0.03							0.08
Salts and spices	0.52	0.52	0.02					
Beverages	0.05	0.04 – 0.18 – 0.32						0.27
Ready to eat								0.02
Total consumery intake								**3.1**

Table 5.29. Mercury Daily Intake (µg/day) by Consumers Only. High level.

Food group	BE	FR	DE	HE	IR	NO	UK
Milk, milk products	0.365						0.25
Condensed, powder milk, cheese, youghurt			0.45				0.34
Fats and oils			0.30				0.13
Fruits and vegetables		4.43 – 14.3	34.55				0.59
Confectionary							0.21
Cereals and bakery wares		3.07	2.40				1.64
Meat			3.58		0.95		0.71
Offal			0.18		0.57		0.32
Fish and fish products	10.36	5.4 – 16.3	13.25	23.82	4.1	34.06	4.23
Bivalve, crustaceans and cephalopods	1.90	0.74 – 1.37	1.07	24.24	1.94	4.25	2.37
Eggs							0.1
Sweeteners							0.29
Salts and spices		1.25	0.05				
Beverages		0.10 – 0.46 – 1.05					0.66
Ready to eat							0.07
Total Consumer Intake							**6.4**

Table 5.30. Mercury. Daily intake (µg/day) by children in different age groups.

	Mean population High level		**Consumers only Mean level**		**Consumers only High level**	
	4-6 years	10-12 years	4-6 years	10-12 years	4-6 years	10-12 years
FOOD	**DE**		**DE**		**DE**	
Milk, milk products						
Condensed, powder milk, cheese, yoghurt	0.25	0.27	0.09	0.10	0.27	0.29
Fats and oils	0.19	0.275	0.08	0.11	0.19	0.275
Fruits and vegetables	19.50	23.27	9.49	12.63	20.17	24.42
Cereals and bakery wares	1.57	2.18	0.91	1.24	1.58	2.18
Meat	1.86	2.64	0.82	1.27	1.86	2.64
Offal	0.035	0.08	0.04	0.06	0.11	0.18
Fish and fish products	4.95	6.73	2.73	3.78		9.64
Bivalve, crustaceans, cephalopods	~~0~~	~~0~~	0.21	0.30		
Eggs	0.26	0.29	0.11	0.13	0.26	0.29
Sweeteners	0.05	0.04	0.02	0.03	0.07	0.09
Salts and spices	0.03	0.04	0.01	0.02	0.03	0.04
Beverages						

5.9 Occurrence summary table for total mercury

This table contain summaries of occurrence data that has been used in the intake calculation. It provides information on the mean concentration level, median levels where available and min and max values.

Table 5.31.

Mercury. Occurrence summary data for individual food samples. Unit: mg/kg.

Food group code	Food name	No. of samples	Reference	Year of sampling	Type of water[1]	Mean level of **total** Hg	Median level of **total** Hg	Min	Max
Belgium									
1	Dairy product 1	125				0.000533		< 0.001	0.0038
2	Dairy product 2	91						< 0.004	0.0044
8	wild muscle	2		2001				< 0,01	
9	fish	188				0.188743		< 0.01	2.121
10	bivalves.cephalopods	42						< 0.01	0.221
11	crustaceans	40				0.065054		< 0.01	0.159
15	Dietetic formulae	5		2002		0.034		0.015	0.1
Denmark									
	Meat	566	DK-002	1993-97		<0,007	<0,007	<0,007	0.391
	Fish	225	DK-002	1993-97		0.052	0.051	0.011	0.201
	Eggs	30	DK-002	1993-97		0.002	0.002	0.000	0.007
Finland									
9.1.1	pike	8	FI 007	2002		0.412		0.152	0.849
9.1.1	perch	15	FI 007	2002		0.255		0.078	1.35
9.1.1	sprat	6	FI 007	2002		0.024		0.005	0.030
9.1.1	pike perch	10	FI 007	2002		0.203		0.057	0.369
9.1.1	bream	2	FI 007	2002		0.083		0.08	0.085
9.1.1	salmon	15	FI 007	2002		0.068		0.046	0.096
9.1.1	Rainbow trout	18	FI 007	2002		0.031		<0.005	0.048
9.1.1	vendace	7	FI 007	2002		0.084		0.019	0.137
9.1.1	burbot	7	FI 007	2002		0.240		0.019	0.349
9.1.1	powan	3	FI 007	2002		0.083		0.061	0.096
9.1.1	Baltic herring	32	FI 007	2002		0.035		<0.005	0.107
9.4	Canned tuna	13	FI 104	2002		0.16		<0.05	0.48
France									
4	Fruits and vegetables, excl. Mushrooms	57	FR 006	2000-2001		0.006		< 0.001	0.099
4 bis	Mushrooms	65	FR 006	2000-2001		0.334		0.002	2.40
6	Cereals and cereal products	68	FR 006	2000-2001		0.019		0.003	0.115
9	Fish and fish products	617	FR 004-FR 006	2000-2001		0.060		< 0.0003	0.857
10	3.3.1.1.of regulation 466/2001	142	FR 004-FR 006	2000-2001		0.381		< 0.004	4.30
11	Molluscs and cephalopods	145	FR 004-FR 006	2000-2001		0.024		< 0.0013	0.325
12	Crustaceans and echinoderm	6	FR 006	2000		0.041		0.030	0.065
15	Salts, spices, sauces, excl. Soups	149	FR 006	2000-2001		0.053		< 0.000075	0.590

Food group code	Food name	No. of samples	Reference	Year of sampling	Type of water[1]	Mean level of **total** Hg	Median level of **total** Hg	Min	Max
France cont.									
17	Waters	133	FR 006	2000-2001		< 0.000075		< 0.000075	< 0.00008
18	Soft beverages	33	FR 006	2000-2001		0.00048		< 0.000075	0.0025
19	Alcoholic beverages	43	FR 006	2000-2001		0.00141		< 0.000075	0.009
Germany									
1.1 &1.3	milk	89		1997-2002		0.004		<0.002	<0.01
1.5	Milk powder	9		1998		0.003		<0.005	
1.6	cheese	155		1997-2000		0.004		<0.001	0.02
2	oil	36		1998-2002		0.006		<0.002	0.065
4.1	fruits	104		1997-2001		0.002		<0.0002	0.018
4.1.2.2	dried fruits	28		1997-2001		0.002		<0.001	0.023
4.2	nuts and seeds	483		1997-2002		0.004		<0.001	0.06
4.2	vegetable	626		1997-2002		0.011		<0.0002	1.77
4.2	fungi	203		1997-2002		0.103		<0.001	1.31
4.2.2.2	dried vegetables	53		2000-2002		0.736		<0.002	4.7
4.2.2.2	dried algae	13		2000		0.009		<0.01	0.14
4.2.2.2	dried fungi	36		1998-2002		1.22		0.01	4.45
4.2.2.6	cocentrated tomato	36		2000-2001		0.002		<0.001	<0.01
6 and 7	cereals, cereal products, bakery wares	191		1998-2002		0.007		<0.001	0.49
8.1	fresh meat	574		1997-2002		0.012		<0.001	1
8.1	game	328		1997-2002		0.004		<0.0008	0.05
8.4	offal	1935		1997-2002		0.005		<0.0008	0.1
8.5, 8.3 and 8.2	processed meat	246		1998-2002		0.006		<0.0008	0.25
9.1 without 9.1.2 to 9.1.4	fish	3296		1997-2002		0.173		<0.0008	5.8
9.1.2 to 9.1.4	bivalves, crustaceans, squids	687		1997-2002		0.029		<0.0008	0.66
10.1	eggs	26		1997-2000		0.005		<0.01	0.01
11.1	sugar	12		1998-2001		0.004		<0.01	
11.3	honey	99		1997-2002		0.004		<0.001	0.045
11.4	sweeteners	2		1998-2000		0.002		<0.002	
12.1	salt	5		2001-2002		0.011		<0.002	0.024
12.2	herbs and spices	226		1997-2002		0.003		<0.001	0.051
13.1 & 13.2	infant food	267		1997-2002		0.004		<0.001	0.02
13.6	food supplements	37		1998-2002		0.03		<0.001	0.317
14.1.1	water	2092		1997-2002		0.00019		<0.0001	<0.05
14.1.2 & 14.1.3	fruit juice	21		1998-2000		0.003		<0.002	<0.005
14.1.5	tea and coffee	148		1997-2002		0.01		<0.002	0.041
14.2.3	wine	13		2000		0.003		<0.005	
Greece									
9.1.1	Fresh fish	18		1999-2000		0.1387		0.0250	0.8230
9.1.1.5	Grey mullet	4		2002		0.1275	0.1300	0.1200	0.1300
9.1.1.13	bass	6		1999-2000		0.0478		0.0300	0.0800
9.1.1.28	swordfish	3		2000-2002		0.3773		0.2680	0.4320

Food group code	Food name	No. of samples	Reference	Year of sampling	Type of water[1]	Mean level of **total** Hg	Median level of **total** Hg	Min	Max
Greece cont.									
9.1.1.30X1	Chrysophrys auratus	40		1998-2002		0.0619		0.0040	0.1140
9.1.1.30X2	Common Pantora	1		2000		0.1650	0.1650	0.1650	0.1650
9.1.1.30X3	bogue	5		1999-2001		0.0577		0.0205	0.0900
9.1.1.30 X5	Cuttlefish	3		2001		0.1000	0.0520	0.0170	0.2320
9.1.1.30 X6	Perch	3		2001		0.1627	0.1290	0.1140	0.2450
9.1.1.30 X7	Seabream	3		2001		0.1470	0.1300	0.0800	0.2310
9.1.1.30 X8	Small fish eaten whole	10		2001		0.0830	0.0570	0.0350	0.2050
9.1.2.1	Mussels	2		2001		0.0285	0.0285	0.0160	0.0410
9.1.3.2	Squid	2		2001		0.0365	0.0365	0.0350	0.0380
9.1.3.3	Octopus	2		2001		0.0515	0.0515	0.0250	0.0780
9.1.2	Fresh bivalve molluscs	15		2000-2002		0.0231		0.0052	0.0490
9.1.2.1	Mussels	54		2001-2002		0.0215		0.0015	0.0310
9.1.2.2	Oysters	1		2002		0.0120	0.0120	0.0120	0.0120
9.1.3	Fresh cephalopodes	1		2001		<0.01			
9.1.3.2	Octopus	2		2000		0.0450	0.0450	0.0200	0.0700
9.1.4	Fresh crustaceans	2		1998		0.2500	0.2500	0.2000	0.3000
9.1.4.2	Lobsters	1		2000		0.1010	0.1010	0.1010	0.1010
9.1.4.3	shrimp	6		1999		0.2476	0.2300	0.1657	0.3900
9.2.1	Frozen fish. fish fillets and fish products incl. MCE	580		1999-2002		0.1200		<0.003	3.7020
9.4	canned fish	17		1999		0.2721		0.0100	0.4700
9.4.1	Fish canned in oil	28		1999-2002		0.1020		0.0030	0.4500
9.4.2	Fish canned in brine	22		1999-2002		0.0992		<0.003	0.6150
9.4.3	Fermented fish	136		1999-2002		0.0652		<0.003	0.5450
9.4.4.X1	Smoked hering	3		2000-2002		0.0457		0.0370	0.0630
Ireland									
	acid casein powder	43		1995		0.0050		< 0.01	< 0.01
	rennet casein powder	33		1995		0.0050		< 0.01	< 0.01
	skim milk powder	71		1995		0.0050		< 0.01	< 0.01
	Beef	125		1997		0.0050		< 0.01	< 0.01
	Beef (Muscle, Liver, Kidney)	89		2000 - 2001		0.0037		< 0.001	< 0.02
	Lamb (Muscle, Liver, Kidney)	22		2000 - 2001		0.0053		< 0.001	< 0.02
	Pork	100		1997		0.0050		< 0.01	< 0.01
	Pork (Muscle, Liver, Kidney)	10		2000		0.0005		< 0.001	< 0.001
	Poultry	28		2000 - 2001		0.0088		< 0.015	< 0.02
	FARM GAME LIVER	7		2001		0.0100		< 0.02	< 0.02
	Anchovies	1		2001		0.0500		0.0500	0.0500
	Black jack	10		1998		0.0400		0.0400	0.0400
	Black sole	99		1996 - 2000		0.0830		0.0300	0.2100
	Butterfish/Bass	1		2001		1.0500		1.0500	1.0500
	C.Gigas	724		1996 - 2000		0.0279		0.0200	0.0500
	Cod	193		1996 - 2001		0.0634		0.0100	0.1900

Food group code	Food name	No. of samples	Reference	Year of sampling	Type of water[1]	Mean level of **total** Hg	Median level of **total** Hg	Min	Max
Ireland cont.									
	Cuckoo ray	30		1996		0.0800		0.0700	0.0900
	Forkbeard	10		1997		0.0900		0.0900	0.0900
	Gurnard	10		1999		0.0900		0.0900	0.0900
	Haddock	154		1996 - 2001		0.0795		0.0100	0.2700
	Hake	82		1996 - 2001		0.0790		0.0300	0.1500
	Herring	32		1996 - 2001		0.0760		0.0400	0.1000
	John dory	10		1996		0.0700		0.0700	0.0700
	Kipper Fillets	2		2001		0.0400		0.0200	0.0600
	Lemon sole	71		1996 - 2001		0.0713		0.0300	0.1400
	Ling	49		1996 - 2000		0.1680		0.1100	0.2900
	LOBSTER	1		2001		0.3400		0.3400	0.3400
	M.edulis	2150		1996 - 2000		0.0209		0.0200	0.0400
	Mackerel	129		1996 - 2001		0.0410		0.0200	0.0800
	Megrim	110		1996 - 2000		0.0900		0.0200	0.3300
	monk/angler fish	90		1996 - 2000		0.1267		0.0800	0.1800
	Norway lobster	50		1996		0.0900		0.0800	0.1000
	O.edulis	300		1996 - 2000		0.0309		0.0200	0.0500
	Plaice	187		1996 - 2001		0.0474		0.0100	0.1000
	Pollack	10		1996		0.0500		0.0500	0.0500
	Pollock	19		2000		0.1250		0.0500	0.2000
	Prawns	121		1997 - 2001		0.1143		0.0200	0.2400
	Rainbow Trout	1		2001		0.0500		0.0500	0.0500
	Saithe	5		1999		0.2500		0.2500	0.2500
	Salmon	321		1999 - 2001		0.0381		0.0200	0.0900
	Salmon (tinned)	1		2001		0.0200		0.0200	0.0200
	Sardines	4		2001		0.0263		0.0200	0.0500
	Scottish Brisling	1		2001		0.0200		0.0200	0.0200
	Skate/Ray	45		1998 - 2000		0.0800		0.0300	0.1000
	Skippers	1		2001		0.0500		0.0500	0.0500
	Sole Fillet Loose	1		2001		0.0200		0.0200	0.0200
	Torsk	9		1999		0.1600		0.1600	0.1600
	Trout	51		1999 - 2001		0.0459		0.0256	0.1000
	Tuna	14		1998 - 2001		0.1667		0.0600	0.5500
	Tuna (tinned)	1		2001		0.0300		0.0300	0.0300
	White Crab Meat	2		2001		0.0850		0.0700	0.1000
	White sole	20		1996		0.2000		0.1300	0.2700
	Whiting	161		1996 - 2001		0.0733		0.0100	0.2000
	Witch	20		2000		0.0850		0.0800	0.0900
	Wolf-fish	10		1999		0.1900		0.1900	0.1900
	Cod (processed)	28		2001		0.0280		0.0100	0.0600

Food group code	Food name	No. of samples	Reference	Year of sampling	Type of water[1]	Mean level of **total** Hg	Median level of **total** Hg	Min	Max
Ireland cont.									
	Crab Flakes	1		2001		0.0050		< 0.01	< 0.01
	Fish portions, fingers, etc.	9		2001		0.0156		<0.0100	0.0500
	Frozen Fish	1		2001		0.0300		0.0300	0.0300
	Frozen Prawns	1		2001		0.0900		0.0900	0.0900
	Salmon Pate	1		2001		0.0300		0.0300	0.0300
	Whiting	2		2001		0.0200		0.0200	0.0200
	Kippers	1		2001		0.0400		0.0400	0.0400
	Roolmop Herring	1		2001		0.0100		0.0100	0.0100
	Smoked Fish	1		2001		1.2600		1.2600	1.2600
	Smoked Haddock	2		2001		0.1400		0.1000	0.1800
	Smoked Kippers	5		2001		0.0520		0.0100	0.0800
	Smoked Mackerel	9		2001		0.0622		0.0300	0.0900
	Smoked Mussels	1		2001		0.0050		< 0.01	< 0.01
	Smoked Salmon	2		2001		0.0350		0.0200	0.0500
	Smoked Tuna	1		2001		0.0300		0.0300	0.0300
	Woodoak Smoked Sprat	1		2001		0.0500		0.0500	0.0500
	Brisling (tinned)	1		2001		0.0400		0.0400	0.0400
	Mackerel (tinned)	1		2001		0.0400		0.0400	0.0400
	Pink Salmon	5		2001		0.0320		0.0200	0.0500
	Red Salmon	5		2001		0.0460		0.0200	0.0800
	Salmon (tinned)	3		2001		0.0217		0.0300	0.0300
	Sardines (tinned)	5		2001		0.0430		0.0400	0.0700
	Tuna (tinned)	14		2001		0.1071		0.0100	0.2900
	Cinnamon	1		2001		0.0100		0.0100	0.0100
	Tuna Salad	1		2001		0.0300		0.0300	0.0300
	Haddock & Pasta Bake	1		2001		0.0400		0.0400	0.0400
Note: Table does not include all occurrence data (excluded are not quantified data and data from highly contaminated areas. For these please see main table in the Annex									
Italy									
9.1.3.2	Spider octopus	300	IT-011	1997		0.27		0.18	0.42
9.1.3.1	Broadtail squid	212	IT-011	1997		0.07		0.05	0.12
9.1.1.29	Tuna	97	IT-017	1997		0.21*			
9.1.1.25	Shark (*all species*)	54	IT-017	1997		0.45*			
9.1.3.1	Calamary	109	IT-017	1997		0.09*			
9.1.3.2	Octpus	118	IT-017	1997		0.11*			
9.1.3.3	Cuttle-fish	92	IT-017	1997		0.10*			
9.1.3.1	Squid	45	IT-017	1997		0.13*			
9.1.4.3	Prawn & shrimp	111	IT-017	1997		0.10*			
9.1.1.30	Cod & hake	233	IT-017	1997		0.12*			
9.1.1.30	Sole	106	IT-017	1997		0.11*			
9.1.1.30	Plaice	11	IT-017	1997		0.10*			
9.1.1.30	Salmon	12	IT-017	1997		0.09*			
9.1.1.8	Pilchard	164	IT-017	1997		0.11*			

Food group code	Food name	No. of samples	Reference	Year of sampling	Type of water[1]	Mean level of **total** Hg	Median level of **total** Hg	Min	Max
Italy cont.									
9.1.1.9	European anchovy	198	IT-017	1997		0.09*			
9.1.1.30	Mackerel	61	IT-017	1997		0.13*			
9.1.2.1	Mussel	209	IT-017	1997		0.10*			
9.1.2.3	Venus & Carpet shell	96	IT-017	1997		0.08*			
9.1.4.3	Squill or mantis shrimp	720	IT-004	1998		0.14		0.05	0.23
the Netherlands									
	anchovy	1	NL/003	1998		0.05			
	anchovy	10	NL/003	2001		0.051	0.045	0.01	0.13
	flounder	1	NL/003	1999		0.14			
	trout	2	NL/003	1999		0.015	0.015	0.01	0.02
	shrimp	6	NL/003	1999		0.027	0.03	0.02	0.03
	mixed vegetables	1	NL/003	1998		0.003			
	herring	1	NL/003	1998		0.04			
	herring	2	NL/003	1999		0.03	0.03	0.03	0.03
	herring	8	NL/003	2001		0.032	0.03	0.1	0.08
	heek	2	NL/003	1999		0.05	0.05	0.04	0.06
	squid	1	NL/003	1998		0			
	Squid	1	NL/003	1999		0.01			
	squid	3	NL/003	2001		0.03	0.03	0.01	0.05
	cod fish	4	NL/003	1999		0.062	0.055	0.03	0.11
	crab	1	NL/003	1997		0.033			
	crab	3	NL/003	2001		0.05	0.05	0.04	0.06
	mackerel	3	NL/003	1998		0.034	0.03	0.02	0.052
	mackerel	1	NL/003	1999		0.02			
	mackerel	5	NL/003	2001		0.04	0.03	0.01	0.08
	Nile perch	1	NL/003	1999		0.06			
	oysters	1	NL/003	2001		0.01			
	other shelfish	1	NL/003	2001		0.02			
	other fish products	3	NL/003	1997		0.02	0.03	0.005	0.03
	other fish products	1	NL/003	1999		0.03			
	other fish products	16	NL/003	2001		0.037	0.02	0.005	0.17
	other fish species	13	NL/003	1999		0.085	0.05	0.01	0.34
	other fish species	5	NL/003	2001		0.155	0.08	0.005	0.42
	other fish species	9	NL/003	2002		0.314	0.31	0.2	0.56
	eel	3	NL/003	1999		0.057	0.04	0.02	0.11
	eel	1	NL/003	2001		0.08			
	gurnard	1	NL/003	1999		0.16			
	sardines	3	NL/003	1997		0.035	0.037	0.029	0.038
	sardines	4	NL/003	1998		0.071	0.086	0.01	0.101
	sardines	26	NL/003	2001		0.03	0.01	0.01	0.16
	dab	7	NL/003	1999		0.08	0.08	0.02	0.15
	haddock	1	NL/003	2001		0.01			
	haddock	3	NL/003	1999		0.05	0.05	0.04	0.06
	plaice	9	NL/003	1999		0.038	0.04	0.02	0.06
	St jacob shells	1	NL/003	1999		0.01			
	lemon sole	6	NL/003	1999		0.063	0.04	0.01	0.19
	tuna	4	NL/003	1997		0.123	0.138	0.036	0.178
	tuna	4	NL/003	1998		0.019	0.19	0.03	0.035
	tuna	1	NL/003	1999		0.28			
	tuna	14	NL/003	2001		0.196	0.105	0.05	0.77
	whiting	3	NL/003	1999		0.043	0.02	0.02	0.09

Food group code	Food name	No. of samples	Reference	Year of sampling	Type of water[1]	Mean level of **total** Hg	Median level of **total** Hg	Min	Max
the Netherlands cont.									
	salmon	5	NL/003	1997		0.036	0.037	0.031	0.04
	salmon	1	NL/003	1999		0.02			
	salmon	3	NL/003	2001		0.043	0.04	0.01	0.08
Norway									
9	Saltwater fish	580		1994-2000		0.0595		0.004	0.26
9	Freshwater fish	1135		1997-2001		0.2936		0.024	3.98
9	Shellfish	75		1994-1996		0.0908		0.02	0.191
Portugal									
	tomate paste	1	PT-040	2001		0.03	0.03	0.03	0.03
	cereal flour	7	PT-050	200-2001		0.056		0.03	0.09
	breakfast cereals	10	PT-040	2001				0.001	0.003
	bread	3	PT-040	2001				0.001	0.062
	liver(bovine,caprine,quail,rabbit,chicken,wild boar, ovine, turkey, pork, deer equine)	274	PT-050	2001		0.03		0.01	0.10
	fresh fish	515	PT040,020, 061,110,064, 062,063,064	1998-2002		0.3235		0.01	1.66
	bivalves e molluscs	62	PT-020, 061,110,062	1998-2002		0.0795		0.01	0.19
	canned fish	7370	PT-020, 065,110,120, 040	1990-2002				<0.005	1.27
	sugar	11	PT-020	2002		<0.025	<0.025	<0.025	<0.025
	salt	9	PT-040	2000					0.03
Sweden									
9.1.1	Fish	333	SE 002.003	1992-93, 2001		0.21		0.01	2.2
United Kingdom									
Total Diet Study									
1.2.2.2	Dairy produce	20	0	1997		0.002		<0.001	0.002
1.1	Milk	20	0	1997		0.0004		<0.0004	0.0004
2	Oil & fats	20	0	1997		0.003		<0.003	0.004
4.1.1	Fresh fruit	20	0	1997		0.0006		<0.00006	0.0006
4.1.2	Fruit products	20	0	1997		0.0008		<0.0006	0.003
4.2	Green vegetables	20	0	1997		0.0004		<0.0004	0.0005
4.2	Other Vegetables	20	0	1997		0.0006		<0.0006	0.0008
4.2	Potatoes	20	0	1997		0.001		<0.001	<0.001
4.2.2.4	Canned vegetables	20	0	1997		0.0009		<0.0006	0.0067
4, 5, 11	Sugar and preserves	20	0	1997		0.003		<0.003	<0.003
6	Miscellaneous cereals	20	0	1997		0.004		<0.001	0.009
7.1.1	Bread	20	UK/010	1997		0.002		<0.001	0.004
8	Carcase meat	20	UK/010	1997		0.001		<0.001	0.003
8	Poultry	20	UK/010	1997		0.002		<0.001	0.006
8.3	Meat Products	20	UK/010	1997		0.003		0.002	0.006
8.4	Offal	20	UK/010	1997		0.0052		0.002	0.0103
9	Fish	20	UK/010	1997		0.043		0.017	0.092
10	Eggs	20	0	1997		0.0013		<0.0009	0.0028
14	Beverages	20	0	1997		0.0004		<0.0004	<0.0004
15.2	Nuts	20	0	1997		0.003		<0.003	<0.003
Ad hoc									
9.1.1	Fish and Shellfish	110	UK/003	1996-1997	0.08			0.016	0.24
9.1.2	Fish and Shellfish	9	UK/003	1996-1997	0.03			0.008	0.11

Food group code	Food name	No. of samples	Reference	Year of sampling	Type of water[1]	Mean level of **total** Hg	Median level of **total** Hg	Min	Max
United Kingdom cont.									
9.1.3	Fish and Shellfish	3	UK/003	1996-1997	0.04			0.016	0.058
9.1.4	Fish and Shellfish	12	UK/003	1996-1997	0.129			0.051	0.49
9.1 - other[2]	Fish and Shellfish	7	UK/003	1996-1997	0.032			0.001	0.046
9.2.2	Fish and Shellfish	3	UK/003	1996-1997	0.016			0.006	0.025
13	Infant Foods	96	UK/001/011	1997-1999	0.001			<0.0003	0.01
14	Beverages[3]	91	UK/004/005	1997	0.002			0.00002	0.03
4, 6, 14, 1, 16, 12, 2	Vegetarian Foods	99	UK/006/007	1997-1998	0.005			0.001	0.008
1, 7, 16, 15, 9, 1, 8, 4, 12, 14, 6	Snack and Convenience foods	298	UK/002	1996-1999	0.007			0.005	0.082

[1] Upper bound mean. [2] Cockles and winkles. [3] Including 4 samples of 5.1(dried chocolate drinks) and 3 samples of 1.1.4 (flavoured milks/yoghurts)

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5.9 食品中の総水銀含有量（魚介類について抜粋）（仮訳）

ベルギー

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
魚類	fish	188	0.188743		<0.01	2.121
二枚貝、頭足類	bivalves, cephalopod	42				0.221
甲殻類	crustaceans	40	0.065054		<0.01	0.159

デンマーク

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
魚類	fish	225	0.052	0.051	0.011	0.201

フィンランド

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
カワカマス	pike	8	0.412		0.152	0.849
パーチ科	perch	15	0.255		0.078	1.35
スプラット（ニシン科の魚）	sprat	6	0.024		0.005	0.03
パイクパーチ	pike perch	10	0.203		0.057	0.369
ブリーム	bream	2	0.083		0.08	0.08
サケ	salmon	15	0.068		0.046	0.096
ニジマス	rainbow trout	18	0.031		<0.005	0.048
コレゴヌス	vendace	7	0.084		0.019	0.137
バーボット	burbot	7	0.24		0.019	0.349
コクチマス	powan	3	0.083		0.061	0.096
ニシン（バルト海）	baltic herring	32	0.035		<0.005	0.107
マグロ（缶詰）	canned tuna	13	0.16		<0.05	0.48

フランス

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
魚類、魚類加工品	fish and fish products	617	0.06		<0.0003	0.857
軟体動物、頭足類	molluscs and cephalopod	145	0.024		<0.0013	0.325
甲殻類、棘皮動物	crustaceans and echinoderm	6	0.041		0.03	0.065

ドイツ

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
魚類	fish	3296	0.173		<0.0008	5.8
二枚貝、甲殻類、イカ	bivalves, crustaceans, squids	687	0.029		<0.0008	0.66

ギリシア

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
生鮮魚	fresh fish	18	0.1387		0.025	0.823
ボラ	grey mullet	4	0.1275	0.13	0.12	0.13
バス	bass	6	0.0478		0.03	0.08
メカジキ	swordfish	3	0.3773		0.268	0.432
タイ科の一種	Chrysophrys auratus	40	0.0619		0.004	0.114
（不明）	common pantora	1	0.165	0.165	0.165	0.165
（不明）	bogue	5	0.0577		0.0205	0.09
コウイカ	cuttlefish	3	0.1	0.052	0.017	0.232
パーチ科	perch	3	0.1627	0.129	0.114	0.245
シーブリーム	seabream	3	0.147	0.13	0.08	0.231
小魚（まるごと食するもの）	small fish eaten whole	10	0.083	0.057	0.035	0.205
ムール貝	mussels	2	0.0285	0.0285	0.016	0.041
イカ	squid	2	0.0365	0.0365	0.035	0.038
タコ	octopus	2	0.0515	0.0515	0.025	0.078
生活二枚貝	fresh bivalve molluscus	15	0.0231		0.0052	0.0052
ムール貝	mussels	54	0.0215		0.0015	0.031
カキ類	oysters	1	0.012	0.012	0.012	0.012
生鮮頭足類	fresh cephalopodes	1	<0.01			
タコ	octopus	2	0.045	0.045	0.02	0.07

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
生鮮甲殻類	fresh crustaceans	2	0.25	0.25	0.2	0.3
ロブスター類	lobsters	1	0.101	0.101	0.101	0.101
エビ	shrimp	6	0.2476	0.23	0.1657	0.39
冷凍鮮魚介類	frozen fish. Fish fillets and fish	580	0.12		<0.003	3.702
魚類 (缶詰)	canned fish	17	0.2721		0.01	0.47
魚類 (缶詰、オイル漬け)	fish canned in oil	28	0.102		0.003	0.45
魚類 (缶詰、塩水漬け)	fish canned in brine	22	0.0992		<0.003	0.615
発酵魚類	fermented fish	136	0.0652		<0.003	0.545
ニシン薫製	smoked herring	3	0.0457		0.037	0.063

アイルランド

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
カタクチイワシ類	anchovies	1	0.05		0.05	0.05
ブラックジャック (アジ類)	black jack	10	0.04		0.04	0.04
ブラックソール	black sole	99	0.083		0.03	0.21
イボダイ	butterfish/bass	1	1.05		1.05	1.05
マガキ	C. gigas	724	0.0279		0.02	0.05
タラ	cod	193	0.0634		0.01	0.19
ガンギエイ	cuckoo ray	30	0.08		0.07	0.09
ヘイク	forkbeard	10	0.09		0.09	0.09
ホウボウ	gurnard	10	0.09		0.09	0.09
ハドック (タラ類)	haddock	154	0.0795		0.01	0.27
ヘイク	hake	82	0.079		0.03	0.15
ニシン	herring	32	0.076		0.04	0.1
マトウダイ	john dory	10	0.07		0.07	0.07
塩蔵･薫製ニシン	kipper fillets	2	0.04		0.02	0.06
レモンソール	lemon sole	71	0.0713		0.03	0.14
リング	ling	49	0.168		0.11	0.29
ロブスター	lobster	1	0.34		0.34	0.34
ムラサキイガイ	M. edulis	2150	0.0209		0.02	0.04
サバ	mackerel	129	0.041		0.02	0.08
ダルマガレイの一種	megrim	110	0.09		0.02	0.33
アンコウ	monk/angler fish	90	0.1267		0.08	0.18
アカザエビ	norway lobster	50	0.09		0.08	0.1
ヨーロッパガキ	O. edulis	300	0.0309		0.02	0.05
プレイス (ツノガレイ科のカレイ)	plaice	187	0.0474		0.01	0.1
ポラック (タラ類)	pollack	10	0.05		0.05	0.05
ポラック (タラ類)	pollock	19	0.125		0.05	0.2
エビ類	prawns	121	0.1143		0.02	0.24
ニジマス	rainbow trout	1	0.05		0.05	0.05
セイス	saithe	5	0.25		0.25	0.25
サケ	salmon	321	0.0381		0.02	0.09
サケ (缶詰)	salmon (tinned)	1	0.02		0.02	0.02
イワシ類	sardines	4	0.0263		0.02	0.05
スコットランドニシン	scottish brisling	1	0.02		0.02	0.02
エイ類	skate/ray	45	0.08		0.03	0.1
?	skippers	1	0.05		0.05	0.05
カレイ	sole fillet loose	1	0.02		0.05	0.02
トルスク (タラ類)	torsk	9	0.16		0.16	0.16
マス	trout	51	0.0459		0.0256	0.1
マグロ類	tuna	14	0.1667		0.06	0.55
マグロ類 (缶詰)	tuna (tinned)	1	0.03		0.03	0.03
カニ身	white crab meat	2	0.085		0.07	0.1
ホワイトソール	white sole	20	0.2		0.13	0.27
ホワイティング (タラ類)	whiting	161	0.0733		0.01	0.2
カレイ	witch	20	0.085		0.08	0.09
オオカミウオ	wolf-fish	10	0.19		0.19	0.19
タラ (加工)	cod (processed)	28	0.028		0.01	0.06
カニフレーク	crab flakes	1	0.005		<0.01	<0.01
	fish portions, fingers, etc	9	0.0156		<0.01	0.05
冷凍魚類	frozen fish	1	0.03		0.03	0.03
冷凍エビ類	frozen prawns	1	0.09		0.09	0.09

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
サケパテ	salmon pate	1	0.03		0.03	0.03
ホワイティング (タラ類)	whiting	2	0.02		0.02	0.02
塩蔵･薫製ニシン	kippers	1	0.04		0.04	0.04
ニシンの酢漬け？	roolmop herring	1	0.01		0.01	0.01
魚類 (薫製)	smoked fish	1	1.26		1.26	1.26
ハドック (薫製)	smoked haddock	2	0.14		0.1	0.18
キッパー (薫製)	smoked kippers	5	0.052		0.01	0.08
サバ (薫製)	smoked mackerel	9	0.0622		0.03	0.09
ムール貝 (薫製)	smoked mussels	1	0.005		<0.01	<0.01
サケ (薫製)	smoked salmon	2	0.035		0.02	0.05
マグロ (薫製)	smoked tuna	1	0.03		0.03	0.03
ニシン (薫製)	woodoak smocked sprat	1	0.05		0.05	0.05
ニシン (缶詰)	brisling (tinned)	1	0.04		0.04	0.04
サバ (缶詰)	mackerel (tinned)	1	0.04		0.04	0.04
カラフトマス	pink salmon	5	0.032		0.02	0.05
ベニザケ	red salmon	5	0.046		0.02	0.08
サケ (缶詰)	salmon (tinned)	3	0.0217		0.03	0.03
イワシ類 (缶詰)	sardines(tinned)	5	0.043		0.04	0.07
マグロ類 (缶詰)	tuna (tinned)	14	0.1071		0.01	0.29
ツナサラダ	tuna salad	1	0.03		0.03	0.03
ハドックとパスタ焼き	haddock & pasta bake	1	0.04		0.04	0.04

イタリア

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
タコ	spider octopus	300	0.27		0.18	0.42
イカ	broadtail squid	212	0.07		0.05	0.12
マグロ類	tuna	97	0.21			
サメ類	shark (*all species*)	54	0.45			
イカ類	calamary	109	0.09			
タコ	octopus	118	0.11			
コウイカ	cuttle-fish	92	0.1			
イカ	squid	45	0.13			
エビ類	prawn & shrimp	111	0.1			
タラ類	cod & hake	233	0.12			
カレイ	sole	106	0.11			
プレイス (ツノガレイ科のカレイ)	plaice	11	0.1			
サケ	salmon	12	0.09			
ピルチャード (ニシンの仲間)	pilchard	164	0.11			
ヨーロピアン　アンチョビ	european anchovy	198	0.09			
サバ	mackerel	61	0.13			
ムール貝	mussel	209	0.1			
二枚貝	venus & carpet shell	96	0.08			
シャコ類	squill or mantis shrimp	720	0.14		0.05	0.23

オランダ

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
カタクチイワシ	anchovy	1	0.05			
カタクチイワシ	anchovy	10	0.051	0.045	0.01	0.13
カレイ類	flounder	1	0.14			
マス	trout	2	0.015	0.015	0.01	0.02
エビ	shrimp	6	0.027	0.03	0.02	0.03
ニシン	herring	1	0.04			
ニシン	herring	2	0.03	0.03	0.03	0.03
ニシン	herring	8	0.032	0.03	0.1	0.08
？	heek	2	0.05	0.05	0.04	0.06
イカ	squid	1	0			
イカ	squid	1	0.01			
イカ	squid	3	0.03	0.03	0.01	0.05
タラ	cod fish	4	0.062	0.055	0.03	0.11
カニ	crab	1	0.033			
カニ	crab	3	0.05	0.05	0.04	0.06

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
サバ	mackerel	3	0.034	0.03	0.02	0.052
サバ	mackerel	1	0.02			
サバ	mackerel	5	0.04	0.03	0.01	0.08
ナイルパーチ	nile perch	1	0.06			
カキ類	oysters	1	0.01			
その他の貝類	other shelfish	1	0.02			
その他の魚類加工品	other fish products	3	0.02	0.03	0.005	0.03
その他の魚類加工品	other fish products	1	0.03			
その他の魚類加工品	other fish products	16	0.037	0.02	0.005	0.17
その他の魚種	other fish species	13	0.085	0.05	0.01	0.34
その他の魚種	other fish species	5	0.155	0.08	0.005	0.42
その他の魚種	other fish species	9	0.314	0.31	0.2	0.56
ウナギ	eel	3	0.057	0.04	0.02	0.11
ウナギ	eel	1	0.08			
ホウボウ	gurnard	1	0.16			
イワシ類	sardines	3	0.035	0.037	0.029	0.038
イワシ類	sardines	4	0.071	0.086	0.01	0.101
イワシ類	sardines	26	0.03	0.01	0.01	0.16
カレイ	dab	7	0.08	0.08	0.02	0.15
ハドック (タラ類)	haddock	1	0.01			
ハドック (タラ類)	haddock	3	0.05	0.05	0.04	0.06
プレイス (ツノガレイ科のカレイ)	plaice	9	0.038	0.04	0.02	0.06
ホタテ貝類	st yacob shells	1	0.01			
レモンソール	lemon sole	6	0.063	0.04	0.01	0.19
マグロ類	tuna	4	0.123	0.138	0.036	0.178
マグロ類	tuna	4	0.019	0.19	0.03	0.035
マグロ類	tuna	1	0.28			
マグロ類	tuna	14	0.196	0.105	0.05	0.77
ホワイティング (タラ類)	whiting	3	0.043	0.02	0.02	0.09
サケ	salmon	5	0.036	0.037	0.31	0.04
サケ	salmon	1	0.02			
サケ	salmon	3	0.043	0.04	0.01	0.08

ノルウェー

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
海水魚	saltwater fish	580	0.0595		0.004	0.26
淡水魚	freshwater fish	1135	0.2936		0.024	3.98
貝類	shell fish	75	0.0908		0.02	0.191

ポルトガル

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
生鮮魚	fresh fish	515	0.3235		0.01	1.66
二枚貝、軟体動物	bivalves e molluscs	62	0.0795		0.01	0.19
魚類 (缶詰)	canned fish	7370			<0.005	1.27

スウェーデン

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
魚類	fish	333	0.21		0.01	2.2

イギリス

食品名	Food name	検体数	総水銀濃度(mg/kg)			
			平均値	中央値	最小値	最大値
魚類	fish	20	0.043		0.017	0.092
魚介類	fish and shellfish	110			0.008	0.24
魚介類	fish and shellfish	9			0.051	0.11
魚介類	fish and shellfish	3			0.016	0.058
魚介類	fish and shellfish	12			0.051	0.49
魚介類	fish and shellfish	7			0.001	0.046
魚介類	fish and shellfish	3			0.006	0.025