

Supplementary file S1: Modifications made to the dietary questionnaire Meal-Q

1. Modification of the nutrition calculation program to distinguish between the different fat contents of "Milk, sour milk or yogurt" and "Other milk products, e.g., cream or crème fraiche", when the consumption patterns of these food items were requested, as well as when there were follow-up questions as to whether they usually chose low calorie products.
2. Addition to the adult questionnaire of questions regarding game meat and lamb, fish species before and during pregnancy, organic food purchases, and consumption of gluten and lactose. These questions were not included in the nutrition calculation.
3. Addition of a follow-up question to those respondents who reported in the adult questionnaire that they eat flaxseeds, with corresponding modification of the nutrition calculation program (i.e., different nutritional contents of crushed and whole flaxseeds, respectively).
4. Addition to the adult survey of questions regarding the participants' consumption patterns of products with probiotics. This does not affect the nutrition calculation program.
5. Modification of the nutrition calculation program to distinguish between sweet and "low-calorie" drinks.

Supplementary file S2: Estimated sizes of normal portions**Estimated normal portions**

If there was a substantial difference in the definition of a normal portion across the food items included in the same variable, a mean value for the normal portions was taken.

Search terms in the national food database (The Swedish National Food Agency)

| Food item in questionnaire | Normal portion (in grams) | Search term in the SNFA database |
|----------------------------|---------------------------|---|
| Bread (white) | 30 | Bröd vitt fibrer ca 5% typ Jättefranska |
| Bread (whole-grain) | 40 | Rågbröd fullkorn fibrer ca 6% typ Lingongrova Skördeglädje Gott gräddat |
| Rice | 180 | Ris långkornigt kokt m salt |
| Pasta | 170 | Pasta berikad kokt m salt |
| Bulgur | 140 | Bulgur kokt |
| Hard rye bread | 10 | Hårt bröd fullkorn typ vanligt knäckebröd |
| Porridge | 275 | Gröt fullkorn ospec. |
| Egg | 50 | Ägg konventionellt kokt |
| Fat on sandwich | 5 | Matfetsblandning fett 75% berikad typ Bregott |
| Breakfast cereals | 40 | Frukostflingor flingblandning fullkorn Basmüsli |
| Jam | 20 | Jordgubbssylt |
| Cheese | 15 | Ost hårdost fett 31% |
| Ham (on sandwich) | 15 | Gris skinka fett 1-3% skivad rökt |
| Ground meat dishes | 100 | Köttbullar fett ca 15% stekta frysta |
| | 150 | Köttfärsås blandfärs |
| | 350 | Lasagne |
| | 200 | |
| Dressing with mayonnaise | 25 | Dressing majonäs fett ca 40% |
| Ketchup | 12 | Ketchup |
| Salmon | 130 | Lax stekt |
| Cod | 125 | Torsk filé kokt |
| Fish balls | 175 | Fiskbullar m hummersås konserv tillagad |
| Shrimps | 100 | Räkor kokta |
| Soup | 250 | Fisksoppa |
| Pizza | 350 | Pizza Capricciosa rökt skinka restaurang |
| Pancakes | 225 | Pannkaka tunn hemlagad |
| Pommes frites | 150 | Pommes frites friterad potatis fett ca 11% fryst |
| Potatoes | 175 | Potatis kokt m salt |
| Milk in coffee | 10 | Kaffebrädd fett 12% |
| Coffee | 150 | Kaffe bryggt |
| Lemonade | 330 | Läsk m kolsyra |
| Mayonnaise | 40 | Majonnäs fett 80% |
| Cream sauce | 40 | Gräddfils- o crème fraichesås |
| Vinaigrette | 15 | Vinägrett dressing fett 45% |
| Beans | 190 | Vita bönor torkade kokta m salt |
| Olives | 5 | Oliver gröna m paprikafyllning avrunna |
| Roots | 83 | Palsternacka kokt |
| Green peas | 100 | Gröna ärter kokta |
| Broccoli | 100 | Broccoli kokt |
| Avocado | 55 | Avokado |

| | | |
|--|-------|---|
| Corn | 100 | Majskorn konserv u lag |
| Carrot | 70 | Morot |
| Onion | 20 | Lök gul |
| Spinach | 30 | Spenat färsk |
| Lettuce/cucumber/squash | 50 | Gurka |
| Tomato | 50 | Tomat |
| Vegetable mix | 100 | Wokgrönsaker Classic wokade i rapsolja |
| Brown rice | 120 | Råris fullkorn långkornigt kokt m salt |
| Whole-grain pasta | 155 | Pasta >50% fullkorn kokt m salt |
| Baguette/wrap | 475 | Baguette grov m ost skinka sallad lättmajonnäs |
| | 250 | Wrap vetetortilla m fetaost oliver sallad |
| | 362.5 | vitlöksdressing |
| Salad (total) | 100 | Grönsallat gurka tomat paprika u dressing |
| Vegetarian protein source | 17 | Kikärtsbiffar falafel friterade Sojakorv stekt Quorn svampprotein färs bitar filé |
| | 100 | |
| | 100 | |
| | 72.3 | |
| Vegetarian carbohydrate source | 350 | Lasagne vegetarisk spenat chèvre Gratäng grönsaker rotfrukter |
| | 150 | |
| | 250 | |
| Herring/salmon/trout from the Baltic Sea | 35 | Strömming filé stekt Lax stekt Öring odlad rå |
| | 130 | |
| | 125 | |
| | 96.7 | |
| Perch/pike/pike-perch/turbot (lake fish) | 125 | Gädda panerad stekt |
| | 125 | Abborre filé panerad stekt |
| Rainbow trout (lake fish) | 125 | Regnbågslax panerad stekt |
| Tuna | 94 | Tonfisk stekt |
| Hare | 100 | Hare stek stekt |
| Wild boar | 125 | Vildsvin kött rå |
| Deer | 100 | Rådjur kött ugnstekt |
| Elk | 125 | Älgfärsbiff stekt |
| Reindeer | 100 | Ren kött kokt |
| Lamb | 100 | Lamm kotlett stekt |
| Liver | 70 | Gris lever tillagad |
| | 125 | Kyckling lever tillagad |
| | 115 | Nöt lever stekt |
| | 103.3 | |
| Blood pudding/sausage | 150 | Blodpudding blodkorv fett 13% stekt |
| Pork | 84 | Gris fläsk kotlett stekt |
| Bacon | 50 | Bacon gris rökt stekt |
| Beef | 85 | Nöt biff ryggbiff stekt |
| Sausage | 50 | Varmkorv stekt |
| | 100 | Wienerkorv kokt |
| | 100 | Falukorv stekt |
| | 83.3 | |
| Chicken | 125 | Kyckling bröst m skinn stekt |
| Hamburger/kebab/tacos | 90 | Hamburgare blandfärs stekt Taco m köttfärsfyllning m.m. Kebab m bröd sallad sås |
| | 425 | |
| | 250 | |
| | 255 | |

| | | |
|---|-------|--|
| Tea | 250 | Te bryggt |
| Water | 250 | Kranvatten |
| Chocolate milk | 200 | Mjölkdryck jordgubb fett 1.5% berik |
| Milk (glass or plate) | 200 | Mellanmjölk fett 1.5% berik m D-vitamin |
| Juice | 200 | Juice ospec. |
| | 200 | |
| | 250 | Fruktdryck nypon |
| Fruit soup/cream/smoothie | | Fruktsocka ätf blandad torkad frukt pastöriserad berik |
| | 125 | Krä m bär frukt ospec. |
| | 191.7 | |
| Oatmeal drink | 200 | Havredryck berikad |
| Nuts | 40 | Chilinötter |
| Ice cream | 75 | Gräddglass fett 12% |
| | 48 | |
| | 110 | Punschrulle Dammsugare |
| Pastries/cake | 150 | Bärtårta grädde vaniljkräm sylt gele |
| | 102.7 | Äppelpaj |
| Bun | 25 | Fyllt vetebröd bullar längd ospec. |
| Crackers/biscuits | 10 | Veteskorpor |
| Yoghurt | 200 | Yoghurt naturell fett 3% |
| Orange | 125 | Apelsin |
| Apple | 125 | Äpple m skal |
| Liver pâté | 14 | Leverpastej bredbar skivbar fett ca 24% |
| Soy drink | 200 | Sojadryck berikad |
| Dried fruit | 45 | Aprikoser torkade |
| Berries | 125 | Blåbär |
| Other fruit (other than banana, apple, orange, citrus or grape) | 85 | Kiwi grön |
| | 150 | Honungsmelon |
| | 117.5 | |
| Banana | 105 | Banan |
| | 15 | |
| | 100 | Färskost fett 27% typ Philadelphia |
| Cottage cheese/brie | | Cottage cheese färskost naturell fett 4% typ Keso (R) |
| | 50 | Brieost vitmögelost fett 30% |
| | 55 | |
| Probiotics (yoghurt/fil) | 200 | A-fil fett 3% |
| Flaxseed | 8 | Based on the National recommendation |
| Popcorn | 30 | Based on the declaration of ingredients in one of the most common brands in Sweden (OLW) |
| Chips | 30 | Based on the declaration of ingredients in one of the most common brands in Sweden (OLW) |

Converting range into means for variables with information about amount

| Amount answered in the questionnaire | Estimated normal portions (mean values in grams) |
|--------------------------------------|--|
| Candy (g) | |
| <50 | 24.5 |
| 50–99 | 74.5 |
| 100–199 | 149.5 |

| | |
|---------------|---------------------|
| 200–299 | 249.5 |
| ≥300 | 300 |
| Don't know | 249.51 ¹ |
| Chocolate (g) | |
| <25 | 12 |
| 25–49 | 37 |
| 50–99 | 74.5 |
| 100–199 | 149.5 |
| ≥200 | 200 |
| Don't know | 82.92 ² |

¹Calculated as: $0+49+50+99+100+199+200+299+300/9$.

²Calculated as: $0+24+25+49+50+99+100+199+200/9$.

Supplementary table S1: Reported dietary intake of fatty acids in gram per day (n=567).

| Fatty acid (g/day) | Total reported daily intake | | |
|----------------------------------|-----------------------------|------------------|-----------|
| | Mean (SD) | Median (IQR) | Min-max |
| 4:0-10:0 | 2.6 (1.3) | 2.4 (1.7-3.3) | 0.4-12.2 |
| 12:0 | 1.1 (0.5) | 1.1 (0.8-1.4) | 0.2-4.2 |
| 14:0 | 3.4 (1.5) | 3.2 (2.3-4.3) | 0.7-13.7 |
| 16:0 | 15.4 (5.9) | 14.9 (11.1-18.6) | 3.9-43.4 |
| 18:0 | 7.2 (3.9) | 6.4 (4.6-8.6) | 1.6-28.5 |
| 20:0 | 0.2 (0.1) | 0.2 (0.2-0.3) | 0.1-0.9 |
| <i>Total saturated fat</i> | 30.9 (12.6) | 29.6 (21.7-37.2) | 7.4-92.6 |
| 16:1 n-7 | 1.2 (0.4) | 1.2 (0.9-1.5) | 0.3-3.3 |
| 18:1 n-9 | 22.7 (8.5) | 21.5 (16.3-27.3) | 5.7-53.0 |
| <i>Total monounsaturated fat</i> | 24.9 (9.1) | 23.5 (18.1-29.8) | 6.3-57.7 |
| 18:2 n-6 | 6.9 (3.4) | 6.2 (4.5-8.6) | 1.6-25.1 |
| 20:4 n-6 | 0.09 (0.04) | 0.09 (0.06-0.11) | 0.02-0.27 |
| 18:3 n-3 | 1.4 (0.8) | 1.2 (0.9-1.6) | 0.3-8.0 |
| 20:5 n-3 | 0.10 (0.08) | 0.08 (0.05-0.15) | 0.00-0.50 |
| 22:5 n-3 | 0.05 (0.03) | 0.05 (0.03-0.08) | 0.00-0.24 |
| 22:6 n-3 | 0.21 (0.14) | 0.17 (0.11-0.30) | 0.01-1.00 |
| <i>Total polyunsaturated fat</i> | 9.0 (4.1) | 8.1 (6.0-11.3) | 2.1-29.3 |

Supplementary table S2: Reported dietary intake of micronutrients per day (n=567).

| Total reported daily intake | | | |
|------------------------------------|------------------|---------------------|----------------|
| Micronutrient | Mean (SD) | Median (IQR) | Min-max |
| Vitamin A (µg) | 720 (340) | 660 (470-850) | 97-2400 |
| Vitamin B6 (mg) | 1.8 (0.7) | 1.7 (1.3-2.1) | 0.4-4.9 |
| Vitamin B12 (µg) | 5.2 (2.1) | 4.9 (3.6-6.4) | 0.9-13 |
| Vitamin C (mg) | 110 (61) | 97 (63-140) | 11-410 |
| Vitamin D (µg) | 6.8 (3.4) | 6.3 (4.2-8.7) | 0.5-26 |
| Vitamin E (mg) | 8.8 (3.7) | 8.1 (6.1-11) | 1.8-28 |
| Vitamin K (µg) | 33 (17) | 30 (22-41) | 3.3-120 |
| Thiamin (mg) | 1.3 (0.5) | 1.3 (0.9-1.6) | 0.2-3.7 |
| Niacin (mg) | 16 (5.6) | 15 (12-19) | 3.8-42 |
| Riboflavin (mg) | 1.8 (0.7) | 1.7 (1.2-2.1) | 0.3-6.1 |
| Iron (mg) | 11 (4.9) | 10 (7.2-13) | 2.2-43 |
| Magnesium (mg) | 310 (120) | 300 (220-380) | 65-770 |
| Potassium (g) | 2.9 (1.0) | 2.9 (2.2-3.4) | 0.68-5.9 |
| Calcium (g) | 1.1 (0.44) | 1.0 (0.77-1.3) | 0.20-3.3 |
| Iodine (µg) | 110 (64) | 98 (69-140) | 10-660 |
| Sodium (g) | 2.3 (0.82) | 2.2 (1.7-2.8) | 0.6-6.9 |
| Folate (µg) | 310 (130) | 300 (230-380) | 43-800 |
| Phosphorus (g) | 1.4 (0.49) | 1.4 (1.0-1.7) | 0.30-3.1 |
| Selenium (µg) | 44 (20) | 40 (30-51) | 6.4-152 |
| Zinc (mg) | 9.7 (3.4) | 9.4 (7.2-12) | 2.3-25 |