Trends in food availability in Norway – the DAFNE III project

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Introduction

Since 1974, Statistics Norway has carried out annual household budget surveys (HBS) of consumer expenditure among a nation-wide and randomly selected sample; while, since 1975, food quantities have also been recorded (Johansson L, Drevon CA and Bjørneboe GE, 1996).

The DAFNE III data for Norway are based on HBS carried out in 1986/87/88, 1992/93/94 and 1996/97/98. In order to establish the DAFNE databank and to provide data comparable between countries, a specific food classification system was developed. Applying the DAFNE food classification system to Norwegian HBS data has proven to reproduce valid estimations of food availability. The DAFNE data bank constitutes hence a valid tool for monitoring the differences over time in food availability in Norway, in addition to providing nutrition data for undertaking comparisons between countries. This information is necessary for the development of nutrition and food policy.

Norway adopted an official nutrition and food policy in 1975. For the first fifteen years, one main goal was to reduce the proportion of fat in the diet from 40 to 35 percent of the energy supply, in order to reduce the coronary heart disease mortality rates (Royal Norwegian Ministry of Agriculture, 1975). A further reduction in the amount of dietary fat to below 30 % of the energy intake has also been a main effort.

Diets rich in fruit and vegetables have a protecting effect on health. On the basis of this knowledge and the fact that the consumption of fruit and vegetables in Norway is low, recommendations for fruit and vegetable intake were implemented. In 1996 the National Nutrition Council (today Department of Nutrition in the Norwegian Directorate for Health and Social Welfare (NDHS)) adopted the "5 a day" message and developed a plan of action in order to increase the fruit and vegetable consumption (National Nutrition Council, 1996a; National Nutrition Council, 1996b).

In this report the overall trends in food availability in Norway, based on the DAFNE data, will be presented. In particular, and in correspondence with the national food policy goals, the present report summarises trends in the availability of milk and milk products, added lipids,

potatoes and other starchy roots, fruits, vegetables and fruit and vegetable juices, dependent of the household's locality and occupation of the household head.

Methodology

The DAFNE data for Norway are based on data registered in the HBSs in 1986, 1987, 1988, 1992, 1993, 1994, 1996, 1997 and 1998. The survey is based on a representative sample of approximately 2,200 households per year. Due to small samples, Statistics Norway publishes aggregated data every third year. Likewise, the sample sizes are the reason why the Norwegian HBS data integrated in the DAFNE databank are aggregated in the respective 3-year periods 1986/87/88, 1992/93/94 and 1996/97/98. The samples for these periods are 4,393, 4,033, and 3,792 households, respectively, with corresponding 2.46, 2.32 and 2.23 members per household (Central Bureau of Statistics of Norway, 1990; Statistics Norway, 1996; Statistics Norway, 2001).

The response rates were 56.9, 61.9 and 58.3% for 1986/87/88, 1992/93/94 and 1996/97/98, respectively. Weighting factors are applied to allow for differential response rates among different types of households.

The samples consisted of households, with members of 0-79 years of age. Institutional households, such as hospitals, boarding houses etc. were not included. Trained interviewers, located in different parts of the country, conducted two home-interviews per household by use of a portable computer. The households kept accounts of their private expenses and recorded food quantities purchased during a 14-day period. The amount of self-produced commodities used in the period, such as meat, fish, vegetables, fruit and berries, were also included. Furthermore, the households recorded benefits received in kind. All food items were recorded in quantities. In data management the recorded food items were aggregated in 218 food groups/items. As the volume and the pattern of household food purchases vary according to season, data were collected during the whole year.

In the DAFNE databank, the households are classified according to different socio-demographic characteristics: locality and composition of the household, education and occupation of the household head. For locality, the DAFNE classification system was similar to the categorisation applied in the Norwegian HBS. The categories of household composition were defined on the basis of the number and the age of household members. For occupation, the households were classified by using information on salary level and employment of the main income earner in the household (Lagiou P, Trichopoulou A et al, 2001). Data on the educational level of the household head have been collected since 1992. Again, the DAFNE classification system was similar to the categorisation applied in the Norwegian HBS.

The low frequency of some socio-economic categories should be noted. With regard to education, very few Norwegians (<0.5%) had not completed elementary school in Norway. With respect to household composition, households with three generation-members (adult + elderly + children) are rare (0.3 - 0.6%) in Norway. Lastly, between 4-8% of the households could not be classified under the selected groups for the households' composition.

Comparing DAFNE III data with other sources of dietary information

Two individual nutrition surveys (INS) with representative samples were conducted in Norway: the NORKOST 1993-94 and 1997 surveys. The method applied for recording food consumption was a pre-coded semi-quantitative food frequency questionnaire with 180 food items. The samples were 3,144 and 2,672 individuals, respectively.

National food supply data, or food balance sheets (FBS), are published annually by the national nutrition authorities, and refer to food available for human consumption at a wholesale level. Statistics for import, export, production and trade of food are utilised.

Food Balance Sheets (FBS), Household Budget Surveys (HBS) and Individual Nutrition Surveys (INS), are all valuable sources of information for surveying the trends in dietary habits within a country. Nevertheless, due to the different nature of the three types of dietary information, there are some limitations involved in comparing nutrition data from the different sources (National Council on Nutrition and Physical Activity, 2000; Becker W, 2001). As an example, the trends in potato and fruit consumption by time are presented in Figure 1. The FBS and HBS data are converted to edible amount of the food items, using edible proportion factors included in the Norwegian food composition table. The figures show that there are differences between the data sets within the food groups. Additionally, the datasets have different patterns for different food groups. For example, the level of amount of fruits is highest in the INS dataset and the latest years lowest in the FBS data. For potatoes the figure shows that FBS data give the highest levels, and HHB data the lowest levels. It is worth noting that although the INS and HBS data reveal similar trends the INS food quantities are higher, probably reflecting the lack of information on meals taken outside the household (the DAFNE data, refer to the amount of food purchased for home consumption).

Results

Table 1 presents the average availability of the 15 main food groups of the DAFNE food classification scheme for the periods 1986/87/88, 1992/93/94 and 1996/97/98 in Norway. The overall differences in the availability of eleven of the fifteen food groups are illustrated in Figure 2. Eggs, pulses, nuts and non-alcoholic beverages are not presented in this figure,

because of negligible changes in time. Figures 3 and 4 show the time trend in availability of potatoes, juices (fruit and vegetable), vegetables and added lipids by locality of the household and occupation of the household head, respectively.

Potatoes

The availability of potatoes in the households has steadily gone down, with an overall reduction of nearly 40 grams from 1986-88 to 1996-98 (Figure 2). The decline in the availability of potatoes over time is most remarkable in semi-urban and urban areas, while in rural areas the availability has been more stable (Figure 3). There is generally a decrease in availability with increased degree of urbanity, as rural households in general have higher potato availability. Retired persons have substantially higher availability of potatoes than employed persons do, but both groups have experienced a decrease in availability during the last period (Figure 4).

Vegetables

The availability of vegetables has increased about 15 grams for the period of 1986-88 to 1996-98 (Table 1), which constitutes an overall increase of 17%. The level of availability is higher in urban areas compared with semi-urban and rural ones. Households in urban and semi-urban areas, however, had about the same increase in availability, while the rural households did not show an increase during the last years (Figure 3). Retired persons recorded the highest values and had the most remarked increase in vegetable availability. Manually occupied people had the lowest availability of this food group (Figure 4).

Fruits and fruit & vegetable juice

While the overall fruit availability has been generally stable, the availability of fruit and vegetable juices has increased remarkably. Households were purchasing 18 ml more juice per person per day in 1996-98 than in 1986-88 (Figure 2), which refers to a 60% increase. The increasing trend in juice availability was observed in all areas of residence (Figure 3). With respect to occupation of household head, an increase in the availability of fruit and vegetable juices was observed in all categories. Non-manual workers have a higher level of availability than manual workers and retired persons. Concerning fruit availability, there were no major changes by occupation or between urban and semi-urban areas, but there was a declining tendency in the fruit availability among rural households (not shown).

Milk and milk products

From 1986-88 to 1996-98, the availability of milk and milk products declined 19% or nearly 100 grams (Figure 2). The reduction in availability of milk products is uniform with regard to sub-groups of locality and occupation of household head. The level of availability is

nevertheless decreasing with degree of urbanity and increasing from non-manual to manual occupations, and from manual workers to retired persons.

Added lipids

The availability of added lipids has declined (24%) from 1986-88 to 1996-98, with an overall reduction of 8 grams (Figure 2). This trend is observed independently of locality (Figure 3) and occupation (Figure 4). Even though all socio-economic groups are following the same declining pattern, there are disparities in the availability values between the groups. The availability is lower in urban areas. Retired persons have considerably higher availability of lipids but also a more marked reduction when compared with employed persons.

Other food groups

The availability of meat, fish and seafood, and sugar and sugar products has only marginally changed from 1986-88 to 1996-98 in Norwegian households (Figure 2). The changes in the availability of eggs, pulses and nuts are also minor. There is a reduction in the availability of cereals of 10 grams, and the availability of alcoholic beverages has increased by 10 ml (Figure 2).

Discussion and concluding remarks

From a public health point of view, the Norwegian diet has undergone both positive and negative changes during the last 10-15 years. One of the positive trends is the increasing availability of vegetables independently of locality and occupation. However, the level of consumption is still low, both compared to other European countries (Naska A, Vasdekis VGS, Trichopoulou A et al, 2000) and according to the recommendations of at least 3 portions on a daily basis.

One reason to the low vegetable intake might be the meal pattern, where lunch most often constitutes of sandwiches and not a dish as in many other European countries. The NCNPA has for several years made efforts to increase the intake of fruit and vegetables in general. Promoting higher availability of these items at workplaces has been one strategy. Additionally, a fruit and vegetable school subscription program has been widely implemented (National Nutrition Council, 1996).

The potato acquisition has declined considerably in the Norwegian households, and the reduction seems to be non-dependent of socio-demographic factors. From national HBS data, we know that the consumption of regular potatoes is heavily reduced while the consumption of processed potato products is increasing. Pommes frites and chips have today about 45% of the total market of potatoes (National Council on Nutrition and Physical Activity, 2000). The

consumption of these products implies a higher fat intake, when compared to the consumption of non-processed potatoes.

Reducing dietary lipid, and especially saturated fat, has for many years been a main goal in national nutrition policy. Milk and milk products are important food groups in Norway, and contribute with a significant amount of dietary fat (23%) (National Council on Nutrition and Physical Activity, 2000). The reduction observed in the acquisition of milk products may have a favourable influence on the proportion of saturated fat intake.

As the figures show, there is also a decline in the availability of added lipids in Norwegian households. In addition to lower acquisition, there has been a shift in use from butter and hard margarine to light margarine and vegetable oils. This trend may be due to the expanded market of margarine and vegetable oils in Norway. Added lipids are the most important source of dietary fat and a change in use away from butter and hard margarine to vegetable oils and plant margarine is desired.

Foods eaten outside the home should receive special attention when investigating HBS data for dietary patterns (Becker W, 2001). In Norway, about 15% of the total consumption expenditures are used for food and beverage acquisition and 3% of the total expenses were used to buy food and beverages outside the home (Statistics Norway, 2001).

The incidence of diseases associated with nutrition and diet is high in Norway. In order to reduce the prevalence of diet-related damage to health in the population, national nutrition and food policy has for more than 25 years aimed to alter the Norwegian diet in line with the recommendations.

To investigate whether changes in the diet are achieved, monitoring food consumption and availability is crucial. The national nutrition authorities have for several years used HBS data together with national food supply statistics (FBS) and dietary surveys (INS) to monitor the development of food availability and consumption in the country (National Council on Nutrition and Physical Activity, 2000).

As important as the information on food availability is the knowledge about the content of nutrients in the food consumed. The nutrient quality of the diet can be estimated from the DAFNE data, in addition to analysing the different food groups' contribution of nutrients to the diet. For example, data on food availability has been used to show that changes in dietary lipids have the potential to explain a great deal of the changes in mortality of coronary heart disease in Norway (Johansson L, Drevon CA and Bjørneboe GE, 1996). Hence, the value of

household budget surveys with regard to food and nutrition policy and health promotion efforts should not be underestimated.

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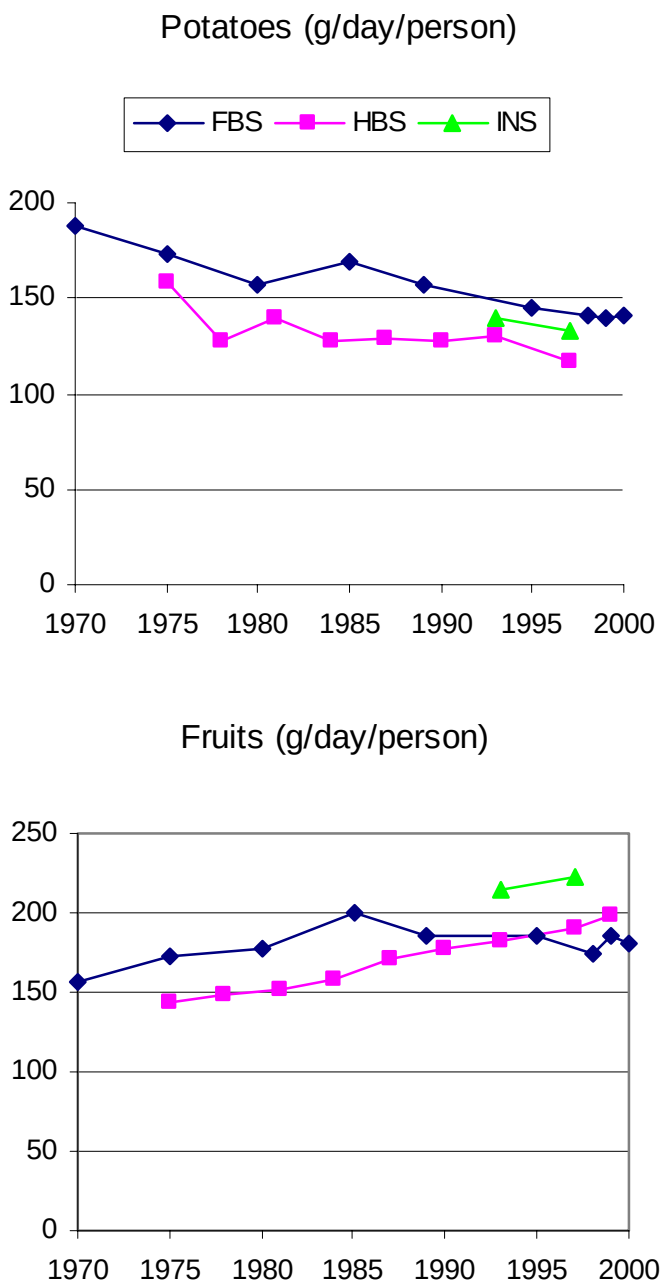

Figure 1: Time trends in potato and fruit consumption, (data presented as edible quantities)

Source: Food balance sheets (1970-2000), household budget surveys (1975-1998), and individual nutrition surveys (NORKOST 1993-94 and 1997).

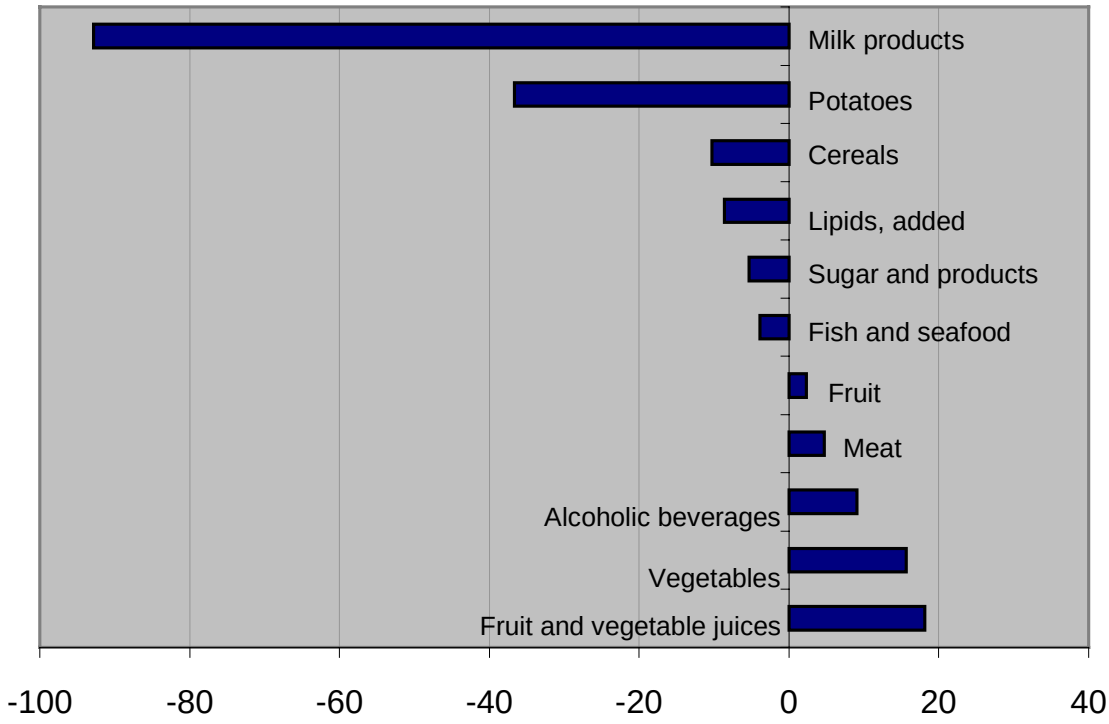

Figure 2: Overall difference in food availability from 1986-88 to 1996-98 (g-ml/day/person).

Source: the DAFNE databank

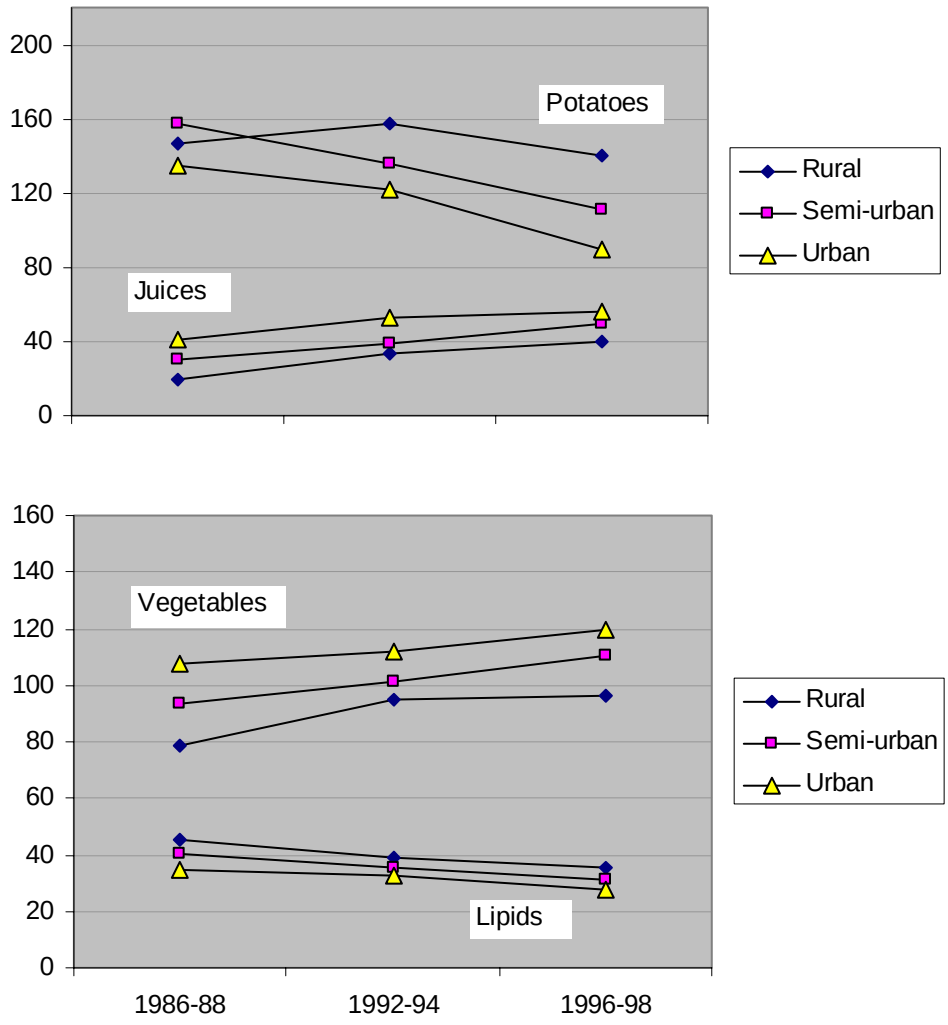

Figure 3: Time trends in the availability of potatoes, juices (fruit and vegetable), vegetables and added lipids by locality, for the periods 1986-88, 1992-94 and 1996-98 (g-ml/day/person).

Source: the DAFNE databank.

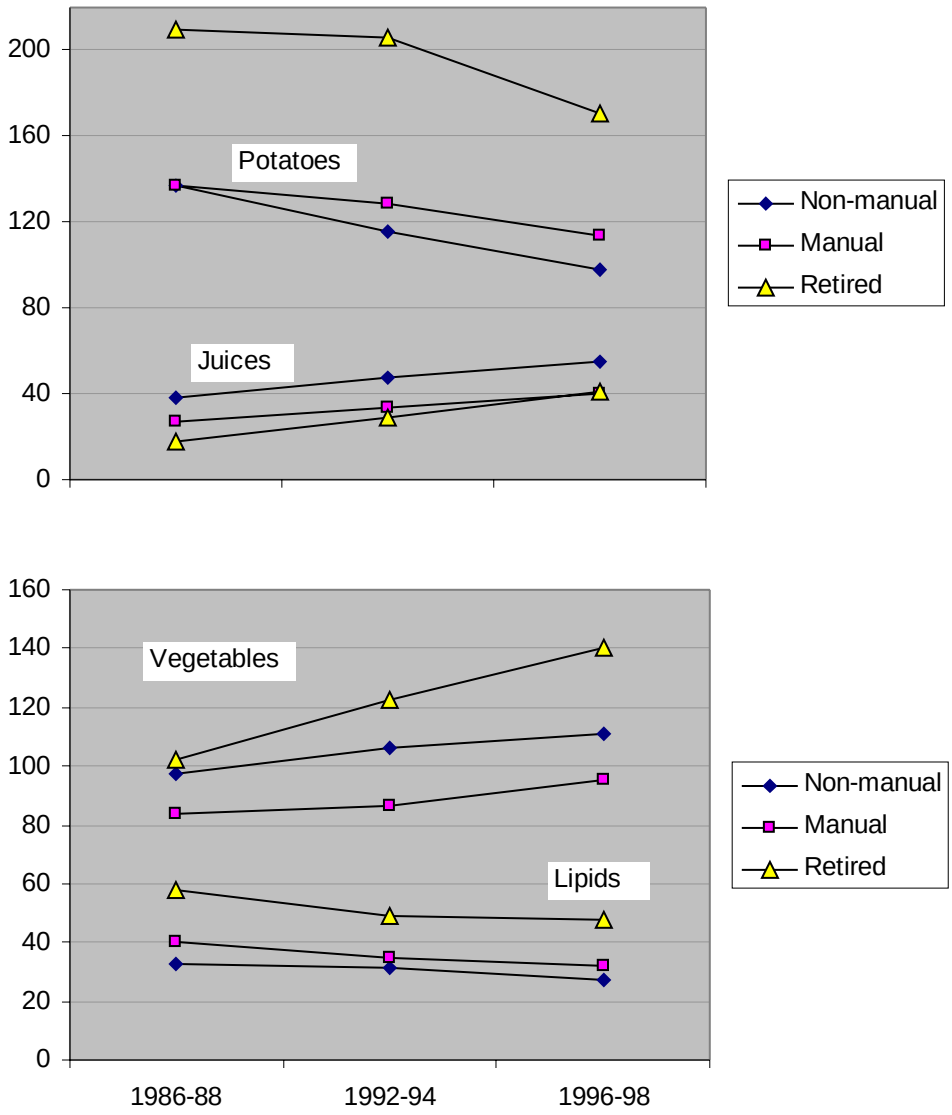

Figure 4: Time trends in the availability of potatoes, juices (fruit and vegetable), vegetables and added lipids by occupation of the household head, for the periods 1986-88, 1992-94 and 1996-98 (g-ml/day/person).

Source: the DAFNE databank

Table 1: Mean daily individual availability for 15 food groups in the Norwegian HBS of 1986/87/88, 1992/93/94 and 1996/97/98 (quantity/day/person).

	Mean availability		
Food Group	**1986/87/88**	**1992/93/94**	**1996/97/98**
Eggs (pieces)	0.41	0.36	0.34
Potatoes and other starchy roots (g)	151	138	114
Pulses (g)	1.6	1.3	0.82
Nuts (g)	3.61	3.32	3.80
Cereals and cereal products (g)	211	205	201
Milk and milk products (g)	479	438	386
Meat and meat products (g)	121	128	126
Vegetables (fresh and processed)(g)	93	102	109
Fish and seafood (g)	54	53	50
Fruits (fresh and processed) (g)	133	134	135
Total added lipids (g)	40	35	32
Alcoholic beverages (ml)	64	71	73
Non alcoholic beverages (ml)	719	713	720
Sugar and products (g)	84	81	79
Juices (fruit and vegetable) (ml)	30	40	48

Source: the DAFNE databank

Table 2: Mean daily food availability for 15 food groups in the Norwegian HBS of 1986/87/88 by locality of the household (quantity/day/person)

	Mean availability		
Food Group	**Rural**	**Semi-Urban**	**Urban**
Eggs (pieces)	0.39	0.41	0.42
Potatoes and other starchy roots (g)	146	157	135
Pulses (g)	2.1	1.7	1.0
Nuts (g)	3.2	3.8	3.4
Cereals and cereal products (g)	224	210	200
Milk and milk products (g)	512	477	448
Meat and meat products (g)	113	122	128
Vegetables (fresh and processed) (g)	78	94	108
Fish and seafood (g)	46	57	54
Fruits (fresh and processed) (g)	137	129	142
Total added lipids (g)	45	40	35
Alcoholic beverages (ml)	38	61	105
Non alcoholic beverages (ml)	684	723	750
Sugar and sugar products (g)	91	84	76
Juices (fruit and vegetable) (ml)	20	30	41

Source: the DAFNE databank

Table 3: Mean daily food availability for 15 food groups in the Norwegian HBS of 1992/93/94 by locality of the household (quantity/day/person)

	Mean availability		
Food Group	**Rural**	**Semi-Urban**	**Urban**
Eggs (pieces)	0.35	0.36	0.34
Potatoes and other starchy roots (g)	158	136	122
Pulses (g)	1.5	1.3	1.0
Nuts (g)	3.7	3.2	3.4
Cereals and cereal products (g)	215	202	202
Milk and milk products (g)	475	436	405
Meat and meat products (g)	136	124	131
Vegetables (fresh and processed) (g)	95	101	112
Fish and seafood (g)	52	51	62
Fruits (fresh and processed) (g)	129	133	140
Total added lipids (g)	39	35	33
Alcoholic beverages (ml)	43	69	109
Non alcoholic beverages (ml)	719	716	694
Sugar and sugar products (g)	87	82	72
Juices (fruit and vegetable) (ml)	33	39	53

Source: the DAFNE databank

Table 4: Mean daily food availability for 15 food groups in the Norwegian HBS of 1996/97/98 by locality of the household (quantity/day/person).

	Mean availability		
Food Group	**Rural**	**Semi-Urban**	**Urban**
Eggs (pieces)	0.32	0.34	0.35
Potatoes and other starchy roots (g)	140	111	90
Pulses (g)	1.1	0.7	0.7
Nuts (g)	3.2	4.2	3.3
Cereals and cereal products (g)	203	201	195
Milk and milk products (g)	414	386	353
Meat and meat products (g)	118	128	128
Vegetables (fresh and processed) (g)	96	110	119
Fish and seafood (g)	60	47	49
Fruits (fresh and processed) (g)	123	139	139
Total added lipids (g)	35	31	28
Alcoholic beverages (ml)	51	70	109
Non alcoholic beverages (ml)	728	722	701
Sugar and sugar products (g)	86	79	67
Juices (fruit and vegetable) (ml)	40	49	56

Source: the DAFNE databank

Table 5: Mean daily food availability for 15 food groups in the Norwegian HBS of 1986/87/88 by household composition (quantity/day/person)*.

	Mean availability						
Food Group	**Adult household-single**	**Adult household-2 members**	**Adult + children (lone parents)**	**Adult + children**	**Adult + elderly**	**Elderly household-single**	**Elderly household-2 members**
Eggs (pieces)	0.47	0.50	0.27	0.33	0.51	0.60	0.57
Potatoes and other starchy roots (g)	106	183	118	121	248	242	185
Pulses (g)	1.7	2.8	0.8	0.8	3.3	2.4	2.7
Nuts (g)	4.6	4.4	3.3	3.8	2.4	2.4	1.6
Cereals and cereal products (g)	222	215	182	193	247	276	243
Milk and milk products (g)	482	507	455	458	482	525	527
Meat and meat products (g)	119	165	111	104	132	143	136
Vegetables (fresh and processed) (g)	99	125	63	77	108	113	106
Fish and seafood (g)	62	76	41	39	72	72	86
Fruits(fresh and processed) (g)	151	157	110	114	164	180	158
Total added lipids (g)	37	41	29	34	57	66	53
Alcoholic beverages (ml)	112	108	37	50	47	41	51
Non alcoholic beverages (ml)	819	925	561	556	881	1052	1101
Sugar and sugar products (g)	69	89	70	77	103	115	109
Juices (fruit and vegetable) (ml)	44	34	30	31	15	20	18

* Results on the group of *Adult + Elderly + Children* households are not presented due to the small number of households classified under this category.

Source: the DAFNE databank

Table 6: Mean daily food availability for 15 food groups in the Norwegian HBS of 1992/93/94 by household composition (quantity/day/person)*.

	Mean availability						
Food Group	**Adult household-single**	**Adult household-2 members**	**Adult + children (lone parents)**	**Adult + children**	**Adult + elderly**	**Elderly household-single**	**Elderly household-2 members**
Eggs (pieces)	0.37	0.44	0.28	0.29	0.45	0.48	0.57
Potatoes and other starchy roots (g)	127	170	79	107	251	225	250
Pulses (g)	1.7	1.8	0.4	0.7	1.6	1.9	2.9
Nuts (g)	2.9	4.4	3.0	3.4	2.2	1.3	2.9
Cereals and cereal products (g)	224	214	173	185	246	255	275
Milk and milk products (g)	473	458	375	418	462	476	502
Meat and meat products (g)	133	165	98	108	168	131	130
Vegetables (fresh and processed) (g)	106	135	70	84	121	146	116
Fish and seafood (g)	61	67	32	39	78	91	92
Fruits (fresh and processed)(g)	138	154	105	111	188	209	211
Total added lipids (g)	31	42	26	29	51	53	62
Alcoholic beverages (ml)	136	106	32	47	61	62	50
Non alcoholic beverages (ml)	887	889	600	577	850	850	911
Sugar and sugar products (g)	78	87	63	76	88	101	133
Juices (fruit and vegetable) (ml)	48	41	42	41	28	27	20

* Results on the group of *Adult + Elderly + Children* households are not presented due to the small number of households classified under this category.

Source: the DAFNE databank

Table 7: Mean daily food availability for 15 food groups in the Norwegian HBS of 1996/97/98 by household composition (quantity/day/person)*.

	Mean availability						
Food Group	**Adult household-single**	**Adult household-2 members**	**Adult + children (lone parents)**	**Adult + children**	**Adult + elderly**	**Elderly household-single**	**Elderly household-2 members**
Eggs (pieces)	0.33	0.42	0.24	0.27	0.47	0.49	0.51
Potatoes and other starchy roots (g)	90	151	66	94	166	133	210
Pulses (g)	0.9	1.0	0.6	0.6	1.8	0.2	1.8
Nuts g)	3.1	6.0	2.7	3.5	2.5	2.0	5.5
Cereals and cereal products (g)	224	210	176	186	243	225	231
Milk and milk products (g)	402	413	308	366	480	406	454
Meat and meat products (g)	132	151	115	109	153	147	151
Vegetables (fresh and processed) (g)	112	144	82	88	146	142	137
Fish and seafood (g)	50	65	28	37	93	66	96
Fruits (fresh and processed) (g)	133	158	98	115	213	195	196
Total added lipids (g)	25	36	26	27	52	44	60
Alcoholic beverages (ml)	130	110	48	49	65	47	61
Non alcoholic beverages (ml)	808	881	528	578	943	1085	1009
Sugar and sugar products (g)	67	86	75	77	93	85	100
Juices (fruit and vegetable) (ml)	59	48	47	48	37	64	29

* Results on the group of *Adult + Elderly + Children* households are not presented due to the small number of households classified under this category.

Source: the DAFNE databank

Table 8: Mean daily food availability for 15 food groups in the Norwegian HBS of 1986/87/88 by occupation of the household head (quantity/day/person).

	Mean availability			
Food Group	**Non - manual**	**Manual**	**Retired**	**Other***
Eggs (pieces)	0.38	0.38	0.54	0.45
Potatoes and other starchy roots (g)	137	137	210	168
Pulses (g)	1.3	1.6	2.6	1.7
Nuts (g)	4.1	3.5	2.8	2.9
Cereals and cereal products (g)	200	210	239	216
Milk and milk products (g)	467	480	504	487
Meat and meat products (g)	118	119	135	122
Vegetables (fresh and processed) (g)	97	83	102	94
Fish and seafood (g)	49	49	77	56
Fruits (fresh and processed) (g)	138	116	158	131
Total added lipids (g)	33	40	58	43
Alcoholic beverages (ml)	77	55	52	57
Non alcoholic beverages (ml)	625	701	972	772
Sugar and sugar products (g)	77	79	104	106
Juices (fruit and vegetable) (ml)	38	27	17	24

* Students / housewives/ unemployed / invalid persons

Source: the DAFNE databank

Table 9: Mean daily food availability for 15 food groups in the Norwegian HBS of 1992/93/94 by occupation of the household head (quantity/day/person).

	Mean availability			
Food Group	**Non - manual**	**Manual**	**Retired**	**Other***
Eggs (pieces)	0.35	0.32	0.44	0.38
Potatoes and other starchy roots (g)	116	128	206	159
Pulses (g)	1.0	0.9	2.6	1.1
Nuts (g)	3.9	3.0	2.7	2.5
Cereals and cereal products (g)	193	201	241	214
Milk and milk products (g)	432	432	471	431
Meat and meat products (g)	127	123	142	119
Vegetables (fresh and processed) (g)	106	86	122	98
Fish and seafood (g)	50	46	76	47
Fruits (fresh and processed) (g)	139	110	163	139
Total added lipids (g)	31	34	49	34
Alcoholic beverages (ml)	83	64	65	44
Non alcoholic beverages (ml)	653	707	881	712
Sugar and sugar products (g)	77	79	99	80
Juices (fruit and vegetable) (ml)	48	34	29	49

* Students / housewives/ unemployed / invalid persons

Source: the DAFNE databank

Table 10: Mean daily food availability for 15 food groups in the Norwegian HBS of 1996/97/98 by occupation of the household head (quantity/day/person).

	Mean availability			
Food Group	**Non - manual**	**Manual**	**Retired**	**Other***
Eggs (pieces)	0.30	0.33	0.47	0.28
Potatoes and other starchy roots (g)	98	114	171	114
Pulses (g)	0.6	0.9	1.4	0.8
Nuts (g)	4.0	4.0	3.3	2.3
Cereals and cereal products (g)	193	200	223	208
Milk and milk products (g)	375	383	447	337
Meat and meat products (g)	122	123	150	113
Vegetables (fresh and processed) (g)	111	95	141	77
Fish and seafood (g)	44	42	82	72
Fruits (fresh and processed) (g)	139	116	181	85
Total added lipids (g)	27	32	48	27
Alcoholic beverages (ml)	81	63	66	73
Non alcoholic beverages (ml)	632	744	982	653
Sugar and sugar products (g)	73	82	95	68
Juices (fruit and vegetable) (ml)	55	40	41	50

* Students / housewives/ unemployed / invalid persons

Source: the DAFNE databank

Table 11: Mean daily food availability for 15 food groups in the Norwegian HBS of 1992/93/94 and 1996/97/98 by education of the household head (quantity/day/person).

	1992/93/94					1996//97/98				
Food Group	**EI***	**EC**	**SI**	**SC**	**C/U**	**EI***	**EC**	**SI**	**SC**	**C/U**
Eggs (pieces)		0.40	0.37	0.32	0.35		0.40	0.35	0.33	0.31
Potatoes and other starchy roots (g)		185	143	132	106		179	127	101	90
Pulses (g)		1.9	1.4	1.0	0.7		1.3	0.7	0.8	0.5
Nuts (g)		2.6	3.4	3.2	3.8		3.8	3.9	3.6	4.1
Cereals and cereal products (g)		237	203	192	197		212	209	189	199
Milk and milk products (g)		460	447	415	442		430	393	367	387
Meat and meat products (g)		149	125	123	119		139	139	123	114
Vegetables (g)		101	99	96	112		105	108	101	118
Fish and seafood (g)		61	53	49	51		58	58	45	47
Fruits (g)		130	129	129	146		132	138	124	150
Total added lipids (g)		44	37	33	29		40	36	29	27
Alcoholic beverages (ml)		55	65	75	82		44	68	73	92
Non alcoholic beverages (ml)		866	742	664	632		900	818	665	637
Sugar and sugar products (g)		92	81	79	75		89	82	76	76
Juices (fruit and vegetable) (ml)		29	35	41	54		32	45	45	63

* Results are not presented due to the small number of households (<10) classified under this category

EI: Illiterate/Elementary education incomplete **EC**: Elementary education completed **SI**: Secondary education incomplete
SC: Secondary education completed **C/U**: College /University

Source: the DAFNE databank