Trends in food availability in Portugal – the DAFNE IV project

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INTRODUCTION

The use of HBS data for nutritional purposes is highly cost-effective. This information, which is regularly collected and updated, allows a cost-efficient assessment of trends in food habits and the identification of population sub-groups whose dietary habits are not favourable to health. In the case of Portugal, the use of HBS data for nutritional purposes is particularly important. The only Portuguese National Dietary Survey was held in 1980 and its results are out of date. Apart from regional dietary surveys of limited scope, undertaken in the context of particular scientific investigations, Portugal has no representative data on its dietary habits. Food Balance Sheets, collected yearly by the National Statistics Institute (INE), have been used for nutrition education and policy purposes. However, Food Balance Sheets are of limited use as they only provide crude data on food supply at the country level. Although Portuguese HBS are carried out by INE every 5 years for economic purposes, the collected information on quantities of food purchased by each household had only recently been processed

Portugal has joined the DAFNE III project, in the beginning of the year 2000, with data from the 1990 and 1995 HBS. In the DAFNE IV project the 2000 HBS data have been incorporated. The participation of Portugal allows for a better knowledge of food habits at the national level, as well as by socio-demographic characteristics, and for comparisons with other European countries participating in the DAFNE initiative.

In the present report a summary of the analysis of the Portuguese HBS data is presented as it was undertaken in the context of the DAFNE project. Furthermore, it attempts to describe trends in household food availability and socio-demographic disparities in Portuguese food habits from 1990 to 2000.

METHODOLOGY

The DAFNE methodology was applied to data collected by INE within the Portuguese HBS, through which representative samples of the Portuguese population were assessed: 12,403 households in 1989/90, 10,554 households in 1994/95 and 10,020 households in 2000/01. Data collection included daily self-recorded purchases made by each member of the household (open diaries) during the period of 1 week for 1990 and 2 weeks for 1995 and 2000. Data on own production and payment in kind was also included. Food and beverage purchases were recorded both in money values and quantities and were in a second stage grouped in a list of approximately 500 codes. In order to capture seasonal variability, data were collected along one-year period.

The mean daily availability (quantity per person per day) for the overall population and by selected socio-demographic subgroups was estimated for the 15 main DAFNE food/beverage groups. Dietary and socio-demographic variables were classified according to the following schemes:

Food groups - Cereals and cereal products (g), Potatoes and other starchy roots (g), Pulses (g), Vegetables (g), Fruits (g), Nuts (g), Meat, meat products and dishes (g), Fish, seafood and dishes (g), Eggs (pieces), Total added lipids (g), Milk and milk products (g), Sugar and sugar products (g), Alcoholic beverages (ml), Non-alcoholic beverages (ml) and Fruit and vegetable juices (ml);

Locality of the residence - Rural, Semi-urban and Urban;

Education of the household head - Illiterate/Elementary, Secondary and Higher education;

Occupation of the household head - Manual, Non-manual, Retired, Unemployed and Others;

Household composition - 1 Adult, 2 Adults, 1 Adult + Children, Adults + Children, Adults + Elderly, Adults + Elderly + Children, 1 Elderly, 2 Elderly, Others), with children being less than 18 years and elderly more than 65 years old.

Detailed information about the DAFNE methodology or the Portuguese HBS can be found elsewhere [1, 2, 3, 4].

RESULTS

Overall population

During the last decade, the availability of fruit/vegetable juices, non-alcoholic beverages and nuts increased among the Portuguese households. Although smaller, an increasing trend had also been observed in the case of milk and products, meat, fish and seafood, when the 2000 data were compared with the 1990 ones. On the contrary, decreasing trends were quite noticeable for eggs, potatoes, pulses, alcoholic beverages, sugar and products. A smaller but constant decrease was observed in the case of cereals, added lipids and vegetables. Regarding fruits, a decrease was recorded in the first half of the 1990s, followed by a compensating increase in the second half, resulting to an almost unchanging pattern during the last decade (Table 1, Graph 1).

By urbanisation of the residence area (locality)

In all survey years, the average daily availability of cereals, potatoes, pulses, sugar and products and added lipids showed a decreasing pattern from rural to semi-urban and urban areas. On the contrary, fruits, milk and products and non-alcoholic beverages showed an increasing pattern from rural to semi-urban and urban areas. In the case of meat, fish and seafood, the 1990 higher availability of urban areas in comparison with rural ones almost disappeared and turned into a not noticeable difference in 2000. While the availability of fruit/vegetable juices were always higher in urban than in rural areas, alcoholic beverages were always lower, probably suggesting more frequent eating out occasions. Vegetables were in 1990 higher in the rural than in the urban areas and become slightly lower in 2000. For nuts, in 1990 and 1995 higher values were noted in rural areas than in urban ones, but in 2000 this pattern has inverted. (Table 2)

Based on the most recent data, the larger differences between the urban and rural areas were recorded in the case of pulses, potatoes, cereals, alcoholic beverages, sugar/products, added lipids – where urban presented smaller values than rural areas - non-alcoholic beverages, fruit/vegetable juices and fruits – with urban households recording higher values in the two last groups. The availability values reported by semi-urban households were almost always in between those of rural and urban ones, but closest to the urban pattern. (Graph 2)

By educational level of the household head

Households of lower educational level, in comparison with those of higher education, showed a higher availability of cereals, potatoes, pulses, added lipids, sugar and products, and alcoholic beverages. The opposite trend was noticed for fruits, nuts, eggs, milk and products (including cheese), fruit/vegetable juices and non-alcoholic beverages, which were higher in the more educated households. In the case of meat fish and seafood, the values between lower and higher educated households were quite similar for the 3 survey years. Vegetables were slightly higher in the lower educated families in 1990, but in 2000 the values between lower and higher educated households become quite approximate. (Table 3)

The 2000 values show that the highly educated group recorded clearly higher values for fruit/vegetable juices, non-alcoholic beverages, eggs, milk/products, nuts and fruits. On the contrary, they recorded lower values for pulses, alcoholic beverages, sugar/products, potatoes, cereals and added lipids. Food availability values among the group of secondary education were generally closer to the highly educated group. (Graph 3).

By occupation of the household head

Households with heads occupied in manual professions (representing 31% of the 2000 sample) recorded food availability values similar or lower to those recorded by the overall population. A similar pattern was also observed in 1990 and 1995. The situation, however, reversed in 2000. The retired group generally recorded higher values than the overall mean. Non-manual workers hold an intermediate position, without a clear pattern. (Table 4)

Looking up to the 2000 figures for household occupation groups it can be seen that manual and non-manual workers presented generally similar or lower values than the overall mean. Exceptions were observed in alcoholic beverages for manual and in nuts, non-alcoholic beverages and fruit/vegetable juices for non-manual workers, where values were higher than the overall mean. (Graph 4)

Retired and unemployed groups either approached the overall mean values or showed a higher availability pattern. Exceptions were observed in fruit/vegetable juices for retired and in nuts, eggs and sugar/products for unemployed, where values were lower than the global mean. (Graph 5) This has generally been observed in all DAFNE countries probably indicating a smaller eating out component in the daily food consumption and the tendency of elderly, and probably retired individuals, to accumulate food in the household.

By household composition

With respect to how the composition of the household affects food availability within it, it is generally observed that an increase in the number of household members (irrespective of their age) results in a decrease in the quantity of food available to each member. It should however be noted, that not considering age differences when estimating individual availability might result in underestimations in households where children are present.

With the exception of those groups including children, all the other household types had generally presented higher values than the national mean for the 3 studied survey years. (Table 5)

Observing the 2000 values it can be seen that households with children generally had lower values than the global Portuguese mean. The groups of adults and children and of adults, elderly and children followed a similar pattern, which is quite different from the one presented by the single adult with children. (Graph 6).

Households without children showed a generally higher pattern than the overall mean. In comparison with the same size elderly households, one and two member adult households globally have higher availability values. Exceptions were noticed in pulses and sugar/products for both one and two member households and also in cereals for the single ones, where these food groups presented lower values for adults than for elderly households. (Graph 7)

Discussion

Data collected in Portugal in the 1990s were compared to those collected in other countries of the DAFNE Network, in order to identify differences and compare time trends. For these, data for the following countries were used: Belgium 87-99, Greece 87-99, Ireland 87-2000, Norway 86-98, Spain 90-99, United Kingdom 89-99, Germany 88-98 and Finland 90-98 [5, 6].

Between 1990 and 2000, Portuguese household availability showed a noticeable increase in the availability of fruit/vegetable juices, non-alcoholic beverages and nuts. A less evident increase was observed for the main protein supplier groups, meat and meat products, fish and seafood and milk and milk products. For all the remaining food groups a decreasing pattern was observed. The other DAFNE countries have also described this general decreasing pattern, particularly the south European ones.

The Portuguese dietary pattern (as recorded in 2000) was compared to those of the following DAFNE countries, using data collected during around the same period: Greece 98/99, Spain 98/99, Belgium 99, United Kingdom 99, Ireland 99/2000, Germany 98, Austria 99/2000, Norway 98, Finland 98.[5, 6]

Despite of a decreasing trend, Portugal recorded high daily availability of cereals and cereal products and pulses. Ireland (186g/p/d) and Portugal (180g/p/d) recorded the higher potato availability, with the remaining countries ranging from 86g/p/d (Spain) to 137g/p/d (Greece). The decreasing trend in the availability of vegetables that was observed during the last decade resulted in classifying Portugal among the countries with low daily vegetable availability (137g/p/d), when compared to several south and central European countries. On the other hand, fruit availability was still among the highest ones (198g/p/d). Portugal appears second in the list, with Greece appearing first with a much higher value (306g/p/d). Similar daily fruit availability was recorded in Spain (195g/p/d), Austria (192g/p/d) and Germany (182g/p/d). Taking an intermediate position in the case of nuts' availability, Portugal (3.01g/p/d) and Belgium (2.64g/p/d) recorded values which were lower than those recorded in Norway (3.8g/p/d), Greece (4.72g/p/d) or Germany (7.55g/p/d) but higher than the ones in the United Kingdom (1.73g/p/d), Finland (1.56g/p/d), Ireland (1.19g/p/d) and Spain (0.9g/p/d).

Portugal has become one of the countries with high meat availability but, on the positive side, it continues to be the DAFNE country with the highest availability of fish and seafood. Portugal (160g/p/d) together with Ireland (166g/p/d) and Austria (182g/p/d) had the highest availability of meat and meat products. With a fish and seafood availability of 83g/p/d, Portugal is still quite distant from the other participating countries, which recorded values ranging from 9.27g/p/d in Austria to 61g/p/d in Spain. In spite of an increasing trend during the last decade, the Portuguese milk and milk products availability (276g/p/d) is still one of the lowest.

The daily availability of added lipids in Portugal is one of the highest (51g/p/d), quite close to Spain (45g/p/d) and Austria (42g/p/d). Although still distant from the 84g/p/d found in Greece, it is clearly upper the range of values shown by the other countries, 22g/p/d in Ireland and 37g/p/d in Germany. Nevertheless, the pattern in lipid intake would better be evaluated if information on the types of added lipids is considered.

Regardless of the decreasing trends that were seen in the availability of alcoholic beverages within the households, Portugal (125ml/p/d) remains on the top of the list together with Belgium (135ml/p/d), Austria (171ml/p/d) and Germany (200ml/p/d). In contrast, an increasing trend was observed in fruit/vegetable juices and non-alcoholic beverages but Portugal was still among the countries with the lowest availability of these products.

Data clearly suggest that Portugal is deviating from the traditional Mediterranean eating pattern. The increase in the availability of meat within the households, together with the decrease in cereals, potatoes, pulses, fruit and vegetables support this observation. On the contrary, a healthier trend can be observed in the decreasing household availability of alcoholic beverages, sugar and sugar products and added lipids but also by the increasing availability of fruit and vegetables juices, fish and seafood and milk and milk products. In addition, despite the large changes in Portuguese economic development and society, still some disparities in household food availability can be observed by socio-demographic characteristics.

The results presented within the DAFNE project have to be carefully interpreted, as they do not consider the out of home food consumption. For the 1990, 1995 and 2000 Portuguese HBS, respectively, the average total

expenditures for food and beverages corresponded to 38.9%, 31.3% and 29.1% of the total household expenses, of which 76.3%, 71.6% and 68.4% were expenses for home consumption and 23.7%, 28.4% and 31.6% for consumption outside the household. Although these values may vary from country to country, the trends observed for Portugal reflect the increasing contribution of eating out in the daily food intake. Surrounded by a society where eating out is getting more and more important, this is a great limitation but also a huge challenge for future HBS research.

Regardless of some methodological limitations, HBS showed to be a great tool for following time trend in food habits and for between countries comparisons. In addition, in the case of Portugal the HBS data provide nationally representative results most close to consumption.

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Table 1: Overall mean food availability in Portugal, by year (quantity/person/day)

	Mean availability					
Food Group	**1990**	**1995**	Difference % 1990 to 1995	**2000**	Difference % 1995 to 2000	Difference % 1990 to 2000
Eggs (pieces)	0.28	0.23	- 18	0.18	- 22	- 36
Potatoes and other starchy roots (g)	323	230	- 29	180	- 22	- 44
Pulses (g)	14	11	- 21	9.21	- 16	- 34
Nuts (g)	2.33	2.41	+ 3	3.01	+ 25	+ 29
Cereals and cereal products (g)	292	258	- 12	239	- 7	- 18
Milk and milk products (g)	252	261	+ 4	276	+ 6	+ 10
Meat, meat products and dishes (g)	143	163	+ 14	160	- 2	+ 12
Vegetables (fresh and processed)(g)	151	149	- 1	137	- 8	- 9
Fish, seafood and dishes (g)	75	86	+ 15	83	- 4	+ 11
Fruits (fresh and processed) (g)	211	175	- 17	198	+ 13	- 6
Total added lipids (g)	63	56	- 11	51	- 9	- 19
Alcoholic beverages (ml)	190	139	- 27	125	- 10	- 34
Non alcoholic beverages (ml)	97	137	+ 41	171	+ 25	+ 76
Sugar and products (g)	43	34	- 21	30	- 12	- 30
Juices (fruit and vegetable) (ml)	2.20	1.55	- 30	11	+ 610	+ 400

Source: the DAFNE databank

Table 2: Mean food availability in Portugal, by locality of the dwelling and by survey year, (quantity/person/day).

	Rural			Semi-Urban			Urban		
Food Group	**1990**	**1995**	**2000**	**1990**	**1995**	**2000**	**1990**	**1995**	**2000**
Eggs (pieces)	0.31	0.23	0.18	0.24	0.21	0.16	0.29	0.24	0.19
Potatoes and other starchy roots (g)	389	295	220	378	281	199	272	185	156
Pulses (g)	26	20	14	16	15	11	9	7.32	6.81
Nuts (g)	3.83	2.77	2.73	1.55	1.98	2.96	2.06	2.51	3.14
Cereals and cereal products (g)	353	294	281	332	284	257	249	235	216
Milk and milk products (g)	217	218	250	222	235	258	279	286	294
Meat, meat products and dishes (g)	132	146	163	147	179	162	145	161	158
Vegetables (fresh and processed) (g)	178	144	139	144	162	126	142	143	143
Fish, seafood and dishes (g)	64	73	80	72	89	83	80	88	84
Fruits (fresh and processed) (g)	174	132	158	169	154	202	244	199	208
Total added lipids (g)	72	62	58	65	59	51	58	53	48
Alcoholic beverages (ml)	206	153	141	243	179	154	160	116	103
Non alcoholic beverages (ml)	82	91	142	81	110	147	110	164	194
Sugar and products (g)	56	37	35	47	38	34	36	32	26
Juices (fruit and vegetable) (ml)	1.75	1.07	7.25	1.85	0.99	10	2.55	1.97	12

Source: the DAFNE databank

Table 3: Mean food availability in Portugal, by educational level of the household head and by survey year (quantity/person/day).

	1. Illiterate/ Elementary Education			2. Secondary Education			3. Higher Education		
Food Group	**1990**	**1995**	**2000**	**1990**	**1995**	**2000**	**1990**	**1995**	**2000**
Eggs (pieces)	0.28	0.22	0.17	0.32	0.24	0.21	0.32	0.32	0.25
Potatoes and other starchy roots (g)	346	247	188	208	167	158	186	142	132
Pulses (g)	16	13	11	6.69	5.66	5.09	3.16	3.69	3.57
Nuts (g)	2.40	2.27	2.94	1.65	2.25	3.13	3.01	4.77	3.59
Cereals and cereal products (g)	310	272	252	207	207	201	188	188	181
Milk and milk products (g)	238	244	265	308	320	313	354	353	310
Meat, meat products and dishes (g)	141	164	159	152	160	169	146	162	155
Vegetables (fresh and processed)(g)	152	151	137	145	132	138	144	156	135
Fish, seafood and dishes (g)	74	85	81	79	86	91	78	91	79
Fruits (fresh and processed) (g)	202	166	193	252	201	207	258	242	238
Total added lipids (g)	65	58	53	50	49	45	48	54	37
Alcoholic beverages (ml)	200	152	135	155	92	90	95	75	91
Non alcoholic beverages (ml)	90	120	151	122	179	236	155	269	243
Sugar and products (g)	46	36	32	31	28	24	27	30	24
Juices (fruit and vegetable) (ml)	1.76	1.30	9.03	4.78	2.18	16	3.68	3.57	17

Source: the DAFNE databank.

Table 4a: Mean food availability in Portugal in 1990, by occupation of the household head (quantity/person/day).

	1990					
Food Group	**Total**	**Manual**	**Non Manual**	**Retired**	**Unemployed**	**Others**
Cereals and cereal products (g)	292	296	228	342	250	309
Potatoes and other starchy roots (g)	323	331	247	372	331	332
Pulses (g)	14	13	6.94	23	6.13	13
Vegetables (fresh and processed) (g)	150	141	141	182	125	146
Fruits (fresh and processed) (g)	211	186	242	216	198	304
Nuts (g)	2.33	1.94	1.83	3.63	2.34	1.84
Meat, meat products and dishes (g)	143	143	153	138	116	122
Fish, seafood and dishes (g)	74	68	81	83	62	69
Eggs (pieces)	0.28	0.28	0.30	0.29	0.20	0.30
Total added lipids (g)	63	59	54	80	46	57
Milk and milk products (g)	252	234	294	250	239	249
Sugar and sugar products (g)	43	39	32	59	27	53
Fruit and vegetable juices (ml)	2	1.96	3.01	2.00	2.52	1.94
Non-alcoholic beverages (ml)	97	78	114	117	55	114
Alcoholic beverages (ml)	190	206	137	216	118	152

Source: the DAFNE databank.

Table 4b: Mean food availability in Portugal in 1995, by occupation of the household head (quantity/person/day).

Food Group	**1995**					
	Total	**Manual**	**Non Manual**	**Retired**	**Unemployed**	**Others**
Cereals and cereal products (g)	258	260	222	286	243	279
Potatoes and other starchy roots (g)	230	234	171	281	176	234
Pulses (g)	11	13	6.95	13	8.73	12
Vegetables (fresh and processed) (g)	147	138	141	176	131	141
Fruits (fresh and processed) (g)	175	160	197	190	149	160
Nuts (g)	2.41	2.19	2.88	2.57	2.15	1.54
Meat and meat products (g)	163	164	162	163	162	166
Fish and seafood (g)	85	79	88	96	83	79
Eggs (pieces)	0.23	0.22	0.24	0.24	0.25	0.26
Total added lipids (g)	56	55	53	64	50	56
Milk and milk products (g)	261	245	291	265	238	255
Sugar and sugar products (g)	34	32	29	42	31	40
Fruit and vegetable juices (ml)	2	1.23	2.41	1.50	0.96	1.10
Non-alcoholic beverages (ml)	137	114	176	143	139	124
Alcoholic beverages (ml)	139	153	101	152	128	136

Source: the DAFNE databank.

Table 4c: Mean food availability in Portugal in 2000, by occupation of the household head (quantity/person/day).

	2000					
Food Group	**Total**	**Manual**	**Non Manual**	**Retired**	**Unemployed**	**Others**
Cereals and cereal products (g)	239	240	193	278	246	239
Potatoes and other starchy roots (g)	180	171	149	210	199	211
Pulses (g)	9.21	8.8	5.7	13	10	10
Vegetables (fresh and processed) (g)	137	120	124	172	140	136
Fruits (fresh and processed) (g)	198	169	189	252	188	179
Nuts (g)	3.01	2.06	3.68	3.55	2.57	3.99
Meat, meat products and dishes (g)	160	163	157	161	187	133
Fish, seafood and dishes (g)	83	70	83	101	99	70
Eggs (pieces)	0.18	0.16	0.19	0.20	0.16	0.15
Total added lipids (g)	51	48	44	60	58	46
Milk and milk products (g)	276	254	284	298	306	258
Sugar and sugar products (g)	30	28	22	40	26	27
Fruit and vegetable juices (ml)	11	9.0	16	7.7	12	10
Non-alcoholic beverages (ml)	171	149	195	181	188	151
Alcoholic beverages (ml)	125	138	97	131	231	75

Source: the DAFNE databank.

Table 5a: Mean food availability in Portugal in 1990, by household composition (quantity/person/day).

Food Group	1990								
	1 A	**2 A**	**1 A + C**	**A + C**	**A + E**	**A + E + C**	**1 E**	**2 E**	**Other**
Cereals and cereal products (g)	403	375	265	260	354	264	371	344	303
Potatoes and other starchy roots (g)	346	406	263	285	407	352	364	353	338
Pulses (g)	15	20	4.81	13	18	9.51	14	25	14
Vegetables (fresh and processed) (g)	274	237	113	122	194	130	183	206	158
Fruits (fresh and processed) (g)	337	274	206	193	267	160	245	225	205
Nuts (g)	4.76	2.72	2.16	1.64	4.85	1.32	6.34	2.31	2.78
Meat, meat products and dishes (g)	179	201	123	132	154	127	113	136	160
Fish, seafood and dishes (g)	108	113	60	63	87	61	90	88	86
Eggs (pieces)	0.43	0.39	0.33	0.26	0.31	0.26	0.27	0.28	0.29
Total added lipids (g)	121	95	55	51	79	52	88	82	67
Milk and milk products (g)	374	280	289	248	253	221	294	241	238
Sugar and sugar products (g)	84	58	45	34	57	39	86	65	43
Fruit and vegetable juices (ml)	2.84	3.21	1.70	2.40	1.30	1.02	5.01	0.85	2.15
Non-alcoholic beverages (ml)	204	137	73	77	118	84	194	124	109
Alcoholic beverages (ml)	178	271	83	174	220	160	211	234	198

NOTE: A - Adults, **C** – Children, **E** – Elderly, **1A -** One Adult, **2A –** Two Adults, **1E** – One Elderly, **2E** – Two Elderly.
Source: the DAFNE databank.

Table 5b: Mean food availability in Portugal in 1995, by household composition (quantity/person/day).

Food Group	1995								
	1 A	**2 A**	**1 A + C**	**A + C**	**A + E**	**A + E + C**	**1 E**	**2 E**	**Other**
Cereals and cereal products (g)	299	314	219	232	285	239	333	299	256
Potatoes and other starchy roots (g)	229	287	165	191	280	216	323	305	222
Pulses (g)	13	16	3.89	8.57	16	9.69	12	16	12
Vegetables (fresh and processed) (g)	198	220	123	118	182	126	202	195	146
Fruits (fresh and processed) (g)	255	233	176	154	186	134	226	187	193
Nuts (g)	2.20	2.93	1.29	1.79	3.28	2.18	1.65	3.17	2.97
Meat, meat products and dishes (g)	176	211	145	149	174	148	153	160	179
Fish, seafood and dishes (g)	107	127	65	70	99	70	109	102	92
Eggs (pieces)	0.32	0.31	0.23	0.21	0.23	0.20	0.28	0.24	0.24
Total added lipids (g)	70	73	56	48	65	47	69	66	58
Milk and milk products (g)	381	295	339	265	248	223	359	251	238
Sugar and sugar products (g)	51	42	27	28	42	30	57	46	33
Fruit and vegetable juices (ml)	1.75	1.35	2.68	1.72	0.96	1.74	0.65	1.00	1.88
Non-alcoholic beverages (ml)	215	205	131	124	130	107	171	142	144
Alcoholic beverages (ml)	155	198	60	108	171	159	144	147	156

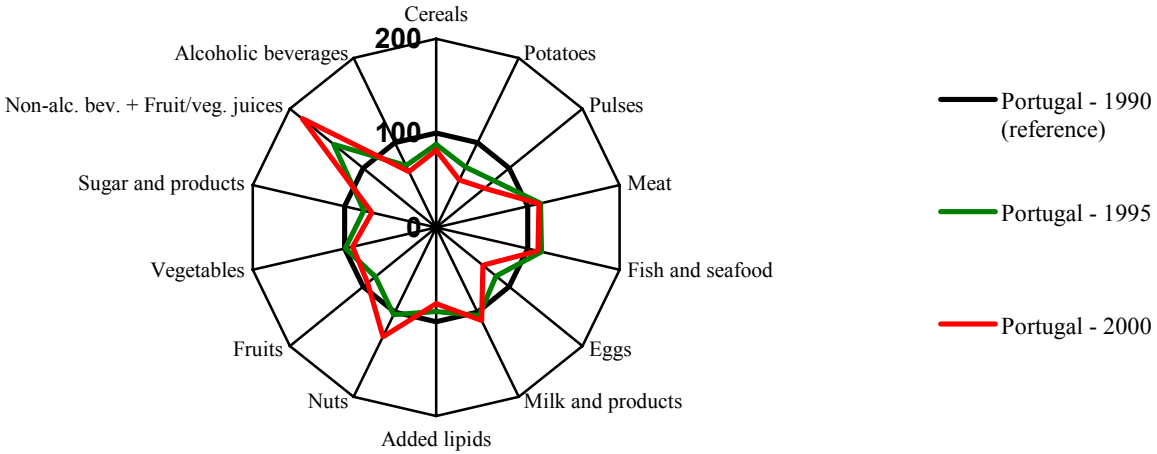
NOTE: A - Adults, **C** – Children, **E** – Elderly, **1A -** One Adult, **2A –** Two Adults, **1E** – One Elderly, **2E** – Two Elderly.
Source: the DAFNE databank.

Table 5c: Mean food availability in Portugal in 2000, by household composition (quantity/person/day).

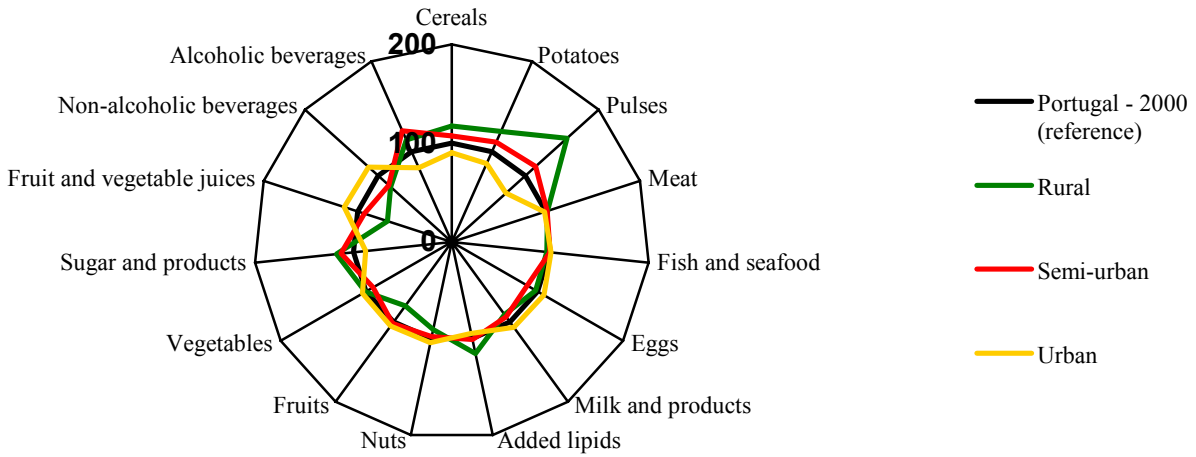
Food Group	2000								
	1 A	**2 A**	**1 A + C**	**A + C**	**A + E**	**A + E + C**	**1 E**	**2 E**	**Other**
Cereals and cereal products (g)	274	287	206	210	261	218	314	294	233
Potatoes and other starchy roots (g)	251	228	84	161	208	133	230	233	160
Pulses (g)	14	12	10	6.60	11	5.12	18	14	9.24
Vegetables (fresh and processed) (g)	200	202	99	107	167	96	191	184	131
Fruits (fresh and processed) (g)	284	259	146	153	206	144	259	237	246
Nuts (g)	3.98	6.00	5.50	2.32	3.53	2.40	2.76	1.79	3.28
Meat, meat products and dishes (g)	200	229	118	147	157	136	144	155	173
Fish, seafood and dishes (g)	100	131	34	62	97	64	96	108	91
Eggs (pieces)	0.28	0.24	0.19	0.15	0.20	0.12	0.24	0.22	0.17
Total added lipids (g)	61	75	45	42	57	41	63	69	46
Milk and milk products (g)	365	311	301	262	279	256	382	297	250
Sugar and sugar products (g)	41	40	15	23	36	26	56	43	27
Fruit and vegetable juices (ml)	24	13	23	11	7.28	7.72	7.20	6.29	12
Non-alcoholic beverages (ml)	253	256	143	145	172	120	235	186	176
Alcoholic beverages (ml)	115	208	170	92	142	99	73	158	153

NOTE: A - Adults, **C** – Children, **E** – Elderly, **1A -** One Adult, **2A –** Two Adults, **1E** – One Elderly, **2E** – Two Elderly.
Source: the DAFNE databank.

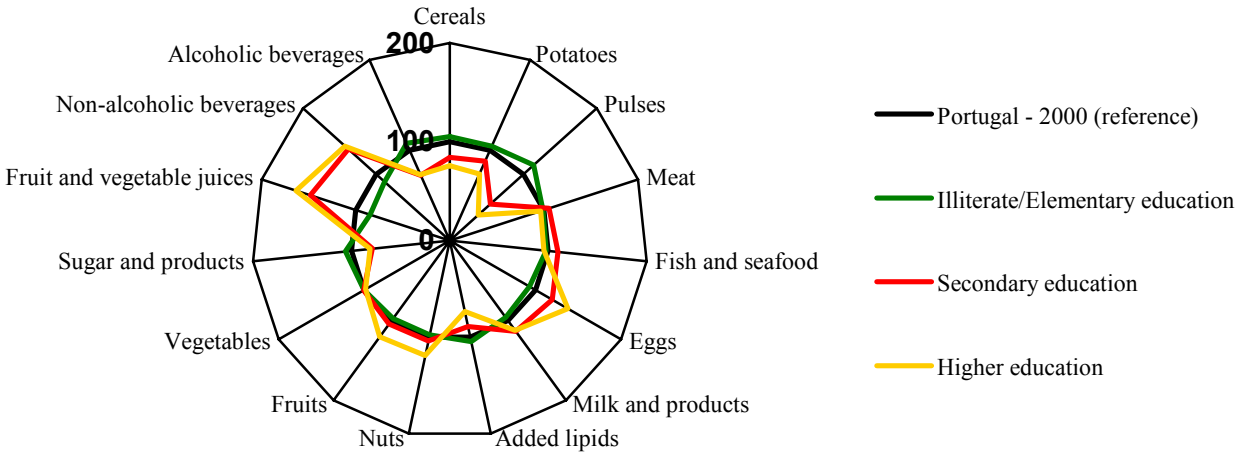
Graph 1: Deviation (%) of the 1995 and 2000 daily food availability from the 1990 daily food availability (the reference circle of 100% corresponds to the daily mean individual availability for 1990 and the dents indicate the deviation of the indicated food groups from the reference mean)



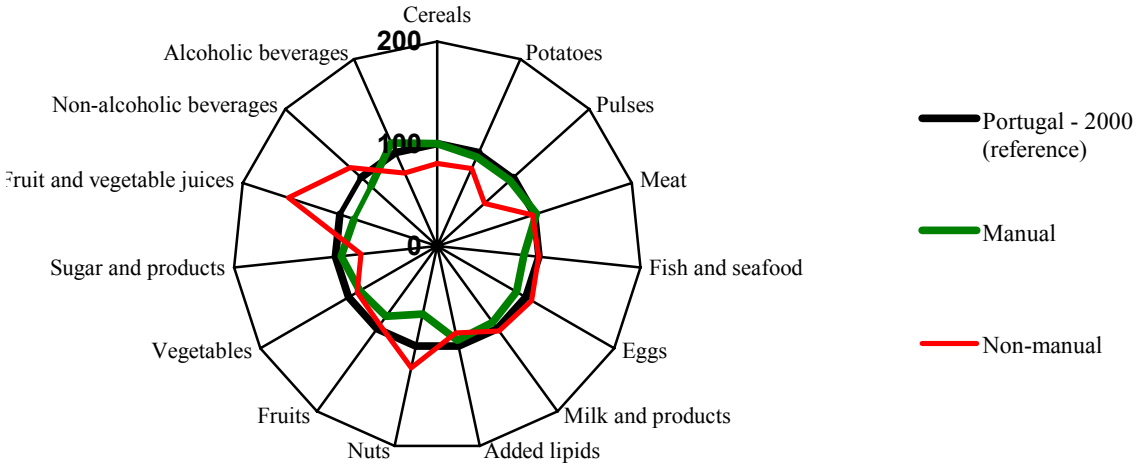
Graph 2: Deviation (%) of the 2000 daily food availability in different residence areas from the overall daily food availability (the reference circle of 100% corresponds to the daily mean individual availability for the overall population and the dents indicate the deviation of the indicated food groups from the reference mean)



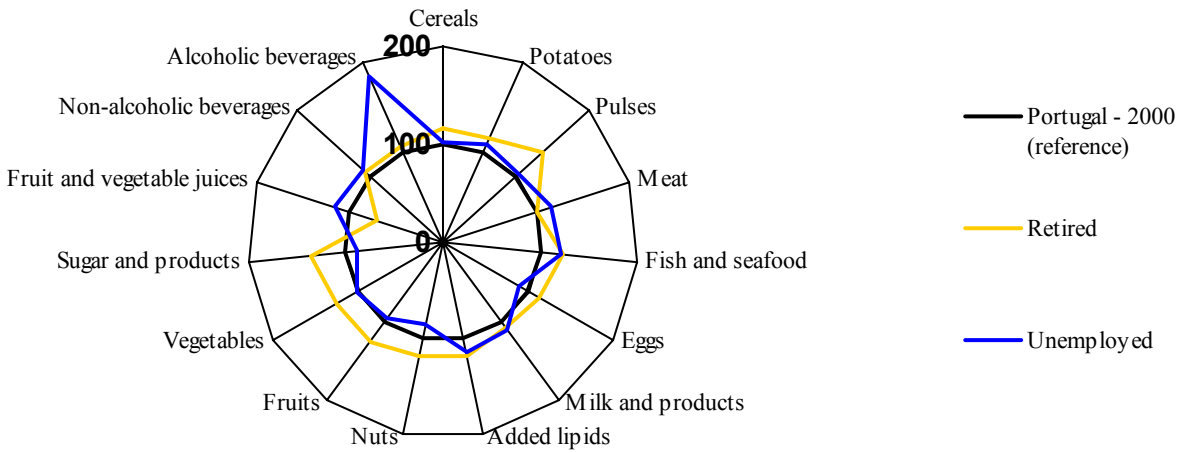
Graph 3: Deviation (%) of the 2000 daily food availability in different educational groups from the overall daily food availability (the reference circle of 100% corresponds to the daily mean individual availability for the overall population and the dents indicate the deviation of the indicated food groups from the reference mean)



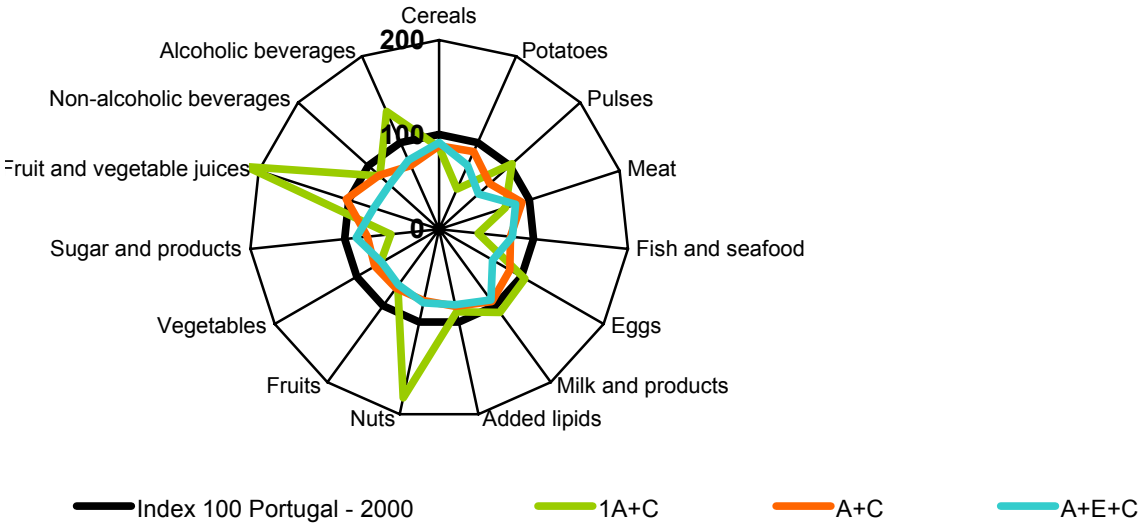
Graph 4: Deviation (%) of the 2000 daily food availability in manual vs. non-manual households from the overall daily food availability (the reference circle of 100% corresponds to the daily mean individual availability for the overall population and the dents indicate the deviation of the indicated food groups from the reference mean)



Graph 5: Deviation (%) of the 2000 daily food availability in households of retired and unemployed heads from the overall daily food availability (the reference circle of 100% corresponds to the daily mean individual availability for the overall population and the dents indicate the deviation of the indicated food groups from the reference mean)



Graph 6: Deviation (%) of the 2000 daily food availability in different household composition with children from the overall daily food availability (the index 100% corresponds to the mean availability for the overall population and the spikes indicate the deviation of specific food groups from the reference mean)



Graph 7: Deviation (%) of the 2000 daily food availability in different household composition with children from the overall daily food availability (the index 100% corresponds to the mean availability for the overall population and the spikes indicate the deviation of specific food groups from the reference mean)