

Faculdade de Ciências da Nutrição e Alimentação da  
Universidade do Porto

Food habits of a Portuguese immigrant  
population living in Germany

Susana Margarida Moreira de Macedo

2000

The present work is included in a wider study in which other aspects were studied besides the effects of migration in the change of the daily food habits. The immigrants' beliefs towards food and food practices in festive days were assessed using a questionnaire developed for this purpose. Interviews were also conducted with immigrant women to assess infant feeding practices and the influence of migration on them.

## Table of contents



List of graphs.....	II
List of tables .....	III
1. Introduction.....	1
2. Objectives.....	2
3. Methodology .....	3
3.1. The Sample and Sampling Procedure.....	3
3.2. The Interview.....	4
3.2.1. The Questionnaire.....	4
3.3. Data Analysis .....	5
4. Results.....	6
4.1. Characterisation of the sample.....	6
4.1.1. Personal data.....	6
4.1.2. Migration history.....	7
4.1.3. General state of health.....	9
4.1.4. Daily food patterns.....	10
4.2. Trends in food consumption.....	13
4.2.1. Food items .....	13
4.2.2. Common Dishes.....	21
4.3. Meal patterns .....	23
5. Discussion.....	27
6. Conclusions .....	33
References .....	IV
Appendices .....	VII



## List of Graphs

1. Degree of integration in Germany.....	8
2. Change of Food Habits .....	12
3. Trends in the frequency of Milk and Milk Products consumption.....	14
4. Trends in the frequency of Eggs, Meat and Fish consumption.....	15
5. Trends in the frequency of Oils and fats consumption .....	16
6. Trends in the frequency of Starchy foods consumption.....	16
7. Trends in the frequency of Cakes and Sweets consumption .....	17
8. Trends in the frequency of Fresh Vegetables consumption.....	18
9. Trends in the frequency of Pulses consumption.....	18
10. Trends in the frequency of Fruits consumption .....	19
11. Trends in the frequency of Alcoholic Drinks consumption .....	20
12. Trends in the frequency of Non-alcoholic Drinks consumption .....	20
13. Trends in the frequency of Soups consumption.....	21
14. Trends in the frequency of some Portuguese “typical” Dishes consumption .....	22
15. Trends in the frequency of Pizza and Hamburger consumption .....	23
16. Trends in the frequency of Home-made Portuguese Desserts consumption .....	23

## List of Tables

1. Weight – Differences between Portugal and Germany and between sexes .....	9
2. Height – Differences between Portugal and Germany and between sexes .....	10
3. BMI - Differences between Portugal and Germany and between sexes.....	10
4. Place from where the immigrants obtained the Food Products .....	11
5. Number of hot/cold meals per day.....	24
6. Number of Soups per day.....	24
7. Meals' place.....	25
8. Meals' commensality.....	26



## 1. Introduction

To emigrate means to leave the homeland as a refugee, to work temporarily or to establish home in another country, foreign to the individuals (Rocha-Trindade *et al*, 1995).

Migration is not an easy process. It implies to leave a life behind, family and friends and restart in another place. In the majority of times e/immigration is due to a need for searching a life with better conditions. It is, therefore, a search for a better economical (and social) status (Baganha, 1998; Rocha-Trindade *et al*, 1995)

The process usually starts with a person (usually a man) that leaves to another country, searches for a job, a house, settles down and then sends for the family. A family reunification is seen after the migration of the wife and the children, who will also have to adapt to the host country (Baganha, 1998; Monteiro and Pinto, 1998).

The new life, together with a new language, new culture, new living and working conditions will affect the life of the newly arrived immigrant to a large extent. The immigrants may never feel totally adapted even when living in the receiving country for decades.

The Portuguese Emigrant lives always with the *Myth of the return* (Baganha, 1998, Rocha-Trindade and Raveau, 1998). "Saudade" is a Portuguese word, which is part of the daily life of the Portuguese emigrants. It involves a nostalgic feeling towards what was left behind, the people, the culture, the habits... and also the food.

Emigrants tend to miss the way they used to eat before in their country, specific foods and dishes, the meals and the taste of food. Following migration, and together with many other aspects, the food habits change either in a voluntary or involuntary way. Acculturation, a complex process of cultural contact, occurs (Monteiro and Santos, 1995). The immigrants assimilate the norms and cultural values of the host society, when the different cultures are put together. This is obviously extended to food habits, as they form a central aspect of the people's culture.

Many aspects contribute to this change in the food habits, as considered by den Hartog and others (1996). When the difference between the new food culture is larger, the immigrants tend not to use many elements from the new culture. The nature and duration of the stay are also an influence, as those who migrate with their families tend to change their food habits less than those

who arrive alone do (den Hartog et al, 1996).

The need to adapt may also happen due to unavailability and price of the migrant's traditional foods. Another factor to be considered is the perception of migrants of the duration of their stay: if they plan not to stay long and to go back to their home country, the change in the food habits may not have such a high extent (den Hartog et al, 1996).

Portugal has a long tradition of emigration, which started with the Discoveries directed to the Atlantic Islands, African, Asian and South American territories. More recently, migration of manpower started in the 19th century to Brazil and in the 1960's due to the country's poor economic conditions thousands of Portuguese migrated to other European countries (Baganha, 1999; Peixoto, 1993).

Between the year 1950 and 1988 about 135 thousand Portuguese people migrated to Germany, which represents 10% from the total emigration in that period. These numbers concern the legal emigration by the SECP (Boletim anual, 1980-81, 1988). When we consider the data of the host country the values encountered are different. In the same period 235 thousand Portuguese people migrated to Germany, data from the German Statistisches Bundesamt (1998). This difference may be due to the illegal migration (Baganha, 1998).

The latest data (31.12.1998) provided by the German Service of Statistics registers 132 578 Portuguese migrants and their offspring living in Germany (Statistisches Bundesamt Wiesbaden, 1998). The Portuguese constitute the 8<sup>th</sup> largest immigrant group in Germany, the first one being the Turkish. Following the Italians and the Greeks, the Portuguese are the biggest immigrant population from the European Union. Gießen and its area belong to the state (Federal Länder) of Hessen, in which 16 036 Portuguese immigrants (12.1% of total) live (Statistisches Bundesamt Wiesbaden, 1998).

## **2. Objectives**

- a) To evaluate the food habits and food preferences of a Portuguese migrant population living in the area of Gießen.
- b) To compare the food habits of this population in the present with the food habits they had in Portugal, before migration occurred.

- c) To compare food habits and preferences of the first with the second generation in this population.

### **3. Methodology**

#### **3.1. The Sample and Sampling Procedure**

The sample for this study consisted of Portuguese immigrants living in Germany, for two years or more, in the area of Gießen, more specifically in Mainzlar- Staufenberg, aged 15 or more years.

A first contact was established with the Vice-President of the Union in a factory that employs Portuguese people living in the village (Mainzlar). This person was asked to contact the Portuguese families living in that area and to distribute an invitation letter amongst this group.

In a second step a letter was sent to all Portuguese families in Mainzlar that were listed in the local telephone list (27 families). In both letters, the family was asked to participate in the study, by being interviewed. Two letters were returned, in one case the person had recently deceased and in the other case the family had moved.

25 families were contacted via telephone in order to arrange a data for the interview. Two families refused to collaborate and four other families never answered the telephone.

As the number of possible participants was considered to be small, the "snow-ball" sampling procedure (Ribeiro, 1999) was used to recruit further respondents. In this way, during the interviews some more families were asked to join the study, usually friends or colleagues of the first families interviewed. In each household any family member over 15 years old was asked to participate, but some of the family members refused as they were too busy or not interested in answering to the questionnaire (mainly the children and men).

In total, 60 people were interviewed, 28 males and 32 females. The sample was divided into first (37 people) and second (23 people) generation immigrants. By "first generation" is meant the people who migrated to Germany and by "second generation" their children that either came with the parents (usually very young) or were already born in Germany.



### **3.2. The Interview**

All the data was collected by interview, using a structured questionnaire (appendices 1 and 2), conducted in Portuguese at the respondent's house. The author and the other two Portuguese University Nutrition students at the University of Gießen in the academic year 1999 – 2000 were the interviewers.

As more than one interview could take place at the same time, to avoid outside influences, separate rooms were used to carry out the data collection.

#### **3.2.1. The Questionnaire**

The questionnaire consists in three main parts:

- a) A first part, where personal data is collected, including the migration history, daily food habits, state of health and economical/ social status. In this part most of the questions have open-ended answers and some are multiple choice ones.
- b) Second part, composed by two qualitative Food Frequency Questionnaires (FFQ) and two "Dishes Frequency Questionnaires" (DFQ) for Germany and Portugal.

The FFQ were developed having as basis one developed by the Hygiene and Epidemiology Service of the Medical School of the University of Porto (Lopes *et al*, 1994) and validated in a sample of university students (Afonso, 1997). It was modified by adding some food items and excluding others, having in mind the Portuguese food habits and some foods common in Germany. The FFQs are qualitative, include 84 food items and have a key of 5 possible categories of answers, varying from "one or more times a day" to "never or less than once a month". An extra category was included for seasonal foods. It was also noted down when respondent never heard about a specific food.

As the aim of this study was to evaluate the Food Habits of the Portuguese immigrants it was considered as very important to ascertain if they consumed some of the Portuguese traditional or other commonly eaten dishes in Portugal and not only to evaluate the food items consumption alone. Therefore, a "Dishes Frequency Questionnaire" was developed with 38 items, the last being a free-spaced item where the person could add one common dish not listed

before. The items are common Portuguese dishes eaten nowadays, most of them considered being "typical" Portuguese. The key of answering categories is the same as for the FFQ.

During the interview, present food habits were firstly assessed, i. e., the person was asked to answer the FFQ and the DFQ regarding the food habits in Germany. Then the respondent was asked to remember what he/she used to eat before leaving Portugal and answer the FFQ and the DFQ for the past food habits.

- c) Third part: In this last part of the questionnaire the person was asked to describe a "normal" day in terms of food consumption in Germany, and back in Portugal, naming each meal, the time, place, commensality and a brief content's description.

The questionnaire was tested in two Portuguese immigrants who were not subsequently included in the study.

### **3.3. Data Analysis**

Data were coded, entered and analysed with the aid of the "Statistical Package for Social Sciences", version 10.0.

In order to get the trends of consumption of the different food items and dishes between Portugal and Germany, values were attributed to each item in a scale from 0 to 28, varying from never eaten the item to its daily consumption. These values represented the items frequency of consumption monthly. When the food item or dish was eaten only in the season, values were divided by 4 (the year having 4 seasons).

To analyse changes in food/dish consumption with migration, to the value for the frequency of consumption of each food/dish in Germany was subtracted the one in Portugal. When the difference was positive it meant that the frequency of consumption had increased, when the value was zero the consumption was maintained and, when the difference was negative the consumption frequency had decreased.

The trends between present and past food habits were analysed with the Wilcoxon-test, a nonparametric-test. The Mann-Whitney Test was also used. Differences were considered statistically significant at the 0.05 level.

## 4. Results

### 4.1. Characterisation of the sample

#### 4.1.1. Personal data

The respondents were aged between 20 and 63 years old (median=49). Those from the first generation were between 22 and 63 years old (median=52), 97.3% being 43 years or more. The respondents from the second generation were between 20 and 38 years old (median=29).

9 people from the second generation (39.1%), 15% of total, were born in Germany.

All the others (1<sup>st</sup> and 2<sup>nd</sup> generation) were born in Portugal, mainly in the Region of Viseu (36,7% of total). The others (48.3% of total) came from Beja (8.3%), Lisbon (6.7%), Santarém (6.7%) and some other regions.

Most respondents were married (71.7%), 25% were single and 3.3% divorced. Only one respondent (a woman) was married with a non-Portuguese person or non-Portuguese descendant.

The level of education of the immigrants was, in general, very low, the median being 4 years of study (elementary school completed) but differences were observed between the 1<sup>st</sup> and 2<sup>nd</sup> generation. The 1<sup>st</sup> generation respondents had a median of 4 years of study (minimum of 1, maximum of 6) and only 8.6% had 5 or 6 years of study. The 2<sup>nd</sup> generation had a median of 10 years of study (minimum of 4, maximum of 17) and only 13% had less than 9 years of education.

A majority of the respondents (78% of total) changed their profession with the emigration.

Half of the men were factory workers in Germany, the most common profession for the immigrant men, while in Portugal only 7.7% had this profession. On the other hand, in Portugal, men were most commonly farmers (23.1%) and in the present no respondent (men or women) had this profession. 10.7% of the men were unemployed in Germany and 3.6% retired, while in Portugal no respondent man was in this situation.

Women had also changed their occupations in most of the cases. 37.5% were housekeepers in Germany even though none of the respondents had this occupation before the migration. In Portugal 22.2% of the women were factory workers, while in Germany only 6.3% had this

profession. In Germany 15.6% of the women were housewives, more than in Portugal (5.6%). In Portugal 11.1% of the women were farmers.

Office worker was a profession only observed in the 2<sup>nd</sup> generation (21.7% of this group) in Germany. This generation had different professions from those of the 1<sup>st</sup> generation group, but there were also factory workers (13%), housekeepers (4.3%), some unemployed (4.3%) as well as students (8.7%).

#### **4.1.2. Migration history**

When comparing the place of birth and the place where the respondents were living before the emigration, it was found that in some cases (19,6%) there was a rural-to-urban migration in Portugal. Most of the respondents were born in a rural place (62.7%) but before emigration only 41.7% were living in a rural area. The chosen destination by 90% of those that experienced this internal migration was Lisbon, the capital city with probably better chances of employment. Although only 6.7% of the immigrants were born in Lisbon, 21.3% were living there before immigrating to Germany.

There were also some cases of indirect migration as 26.7% of the respondents had already lived for more than one year, in another country before settling in Germany. In most cases this was Africa (56,2%), other European countries (25%) or the USA (18,8%).

This group of immigrants were living in Germany between 2 and 35 years, the median being 26. The large majority (92.3%) lived in Germany for 20 years or longer and about half (53.8%) lived in this country for a period between 25 and 28 years.

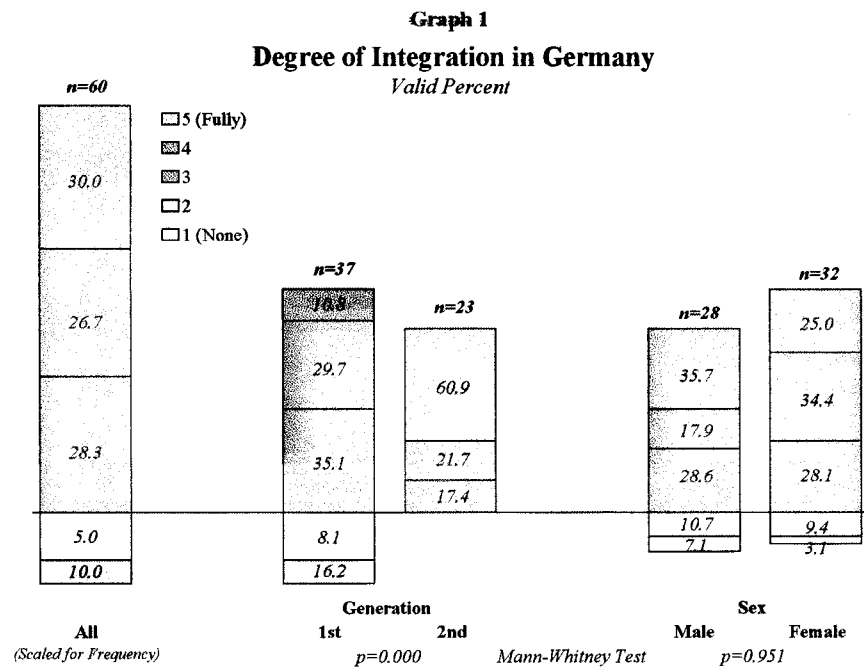
Family (49.0%) and economical factors (47.1%) were the reasons why the Portuguese respondents decided to settle in Germany. All the second-generation migrants came due to familiar reasons (usually with their parents). In fact, with the exception of one case, directly or indirectly, all the respondents immigrated because of economical reasons.

Quite a high percentage (43.2%) of the 1<sup>st</sup> generation immigrants came firstly alone in opposite of those of the 2<sup>nd</sup> generation who came either with their parents (85.7%) or with relatives or friends (14.3%).

When comparing sexes it was possible to see that 56.5% of the men came alone and then usually

sent for the family. Most of the women emigrated to meet their husbands with (21.4%) or without their children (32.1%). In some families, three phases of immigration were seen: first the man, then the wife and finally the children, moved to Germany.

As expected, differences were seen between the 1<sup>st</sup> and 2<sup>nd</sup> generation when comparing their rate of self perceived integration in Germany, according to a scale from 1 (not integrated) to 5 (fully integrated) (Graph 1).



15% of the respondents did not consider themselves as being integrated in Germany. As a whole, the self perceived integration was not very good, but was higher for the 2<sup>nd</sup> generation, compared to the first one, the difference being statistically significant (p=0.000).

There was no difference between sexes regarding self-perceived integration.

The big majority (90.2%) of the immigrants said that their economical status improved with migration, of which 29.3% said it improved very much. No one believed it had worsened.

When the questionnaire was applied, only 11.7% of the immigrants owned a house in Germany, while 60% owned one in Portugal.

The 2<sup>nd</sup> generation respondents (17.4%) tended to own a house in Germany more than the 1<sup>st</sup> generation ones (8.1%). And, on the contrary, the 1<sup>st</sup> generation respondents (86.5%) tended to own a house in Portugal more than the 2<sup>nd</sup> generation immigrants (17.4%) do.

Once (46.7%) or twice a year (33.3%) the immigrants go to Portugal. 11.7% of the immigrants go to Portugal 3 or more times per year. Most respondents from the 2<sup>nd</sup> generation (69.6%) tend to go to Portugal once a year, while those from the 1<sup>st</sup> generation go more often, two or more times per year (59.4%). Only 5% of the immigrants go to Portugal less than once a year.

90% of the immigrants intend to return to Portugal for good: 98,3 of the 1<sup>st</sup> generation and also 78.3% of the 2<sup>nd</sup> generation respondents.

27.8% of the 1<sup>st</sup> generation migrants intended to move to Portugal when retired, 19.4% within the next years and 16.7% as soon as possible. In 13.9% of the cases this would depend on the children and 11.1% would move to Portugal “when it gets better financially”.

The 2<sup>nd</sup> generation group answered they would like to move to Portugal within the next years or “maybe later” (both with 35.3% of the cases) and 17.6% as soon as possible. One said he/she would move to Portugal when finished with the studies and another “when it gets better financially”.

#### 4.1.3. General state of health

Most of the respondents (77.5%) considered their state of health to be “normal” when they moved to Germany, 20.0% said it was “bad” and the remaining 2.5% considered it to be “good”.

More than half of the immigrants (55%) still thought their present state of health to be “normal” but 57.5% thought it had worsened and 40% that it remained as before.

Of those who perceived a change in their health status, only 25% related it to the change in food habits, as the big majority (72.5%) either did not or didn’t know (2.5%).

The immigrants were asked to remember their weights and heights, in Portugal, and to self-assess their present ones. Table 1 refers to weight.

**Table 1**

	Germany		Portugal		p (Wilcoxon test)
	n	kg	n	kg	
Women	31	65.0	21	57.0	0.000
Men	27	75.0	15	67.0	0.001

A statistically significant increase in weight was seen in all groups. Almost all women (90.5%) increased their weight with the immigration and only 4.8% decreased it, the same percentage of those who maintained weight. Similarly, most men had its weight increased (93.3%) and only 6.7% lost weight.

No differences were seen on the self-perceived heights between Germany and Portugal (Table 2).

**Table 2**

	Germany		Portugal		p (Wilcoxon test)
	n	m	n	m	
Women	26	167.5	14	166.05	0.317
Men	29	158.0	20	159.0	0.317

When comparing the Body Mass Index (BMI – Kg/m<sup>2</sup>) between Germany and Portugal, as expected, it is possible to see that it increased in both sexes (Table 3).

**Table 3**

BMI	Women (p*=0.000)		Men (p*=0.001)	
	Germany (n=28)	Portugal (n=18)	Germany (n=26)	Portugal (n=14)
< 20	7.1	3.1	---	---
20 - 25	25.0	77.8	30.8	71.4
25 - 30	60.7	11.1	57.7	28.6
30 - 35	7.1	5.6	11.5	---

\* Wilcoxon test (p ≤ 0.05)

Most of the immigrants were now overweight (Garrow and James, 1996). Compared to their situation in Portugal, the incidence was four times higher for women and twice for men. An increase in the proportion of underweight women was also observed.

No respondent was found to have a BMI higher than 35.

#### 4.1.4. Daily food patterns

In Germany, more than half of the women said they usually cooked, whereas in 28.1% of cases this task was shared with her partner and only 6.3% said their partners cooked more often than themselves.

61060



400282





In what concerns the involvement of the male respondents, only 10.7% mentioned they used to cook on their own and 28.6% with their partners. For more than half of the cases, their partners (35.7%) or their mothers (17.9%) were responsible for cooking.

Differences were observed in relation to whom used to cook in Portugal. Women said it was either them (53.8%) or their mothers (34.6%) and, not surprisingly, men answered their partners (45%) or their mothers (40%) used to cook, which means that cooking was almost totally a woman's task.

In Germany, 41.7% of the respondents bought ready or pre-cooked food sometimes, representing 29.7% of the 1<sup>st</sup> generation respondents and about the double (60.9%) of the 2<sup>nd</sup> one. Men (46.4%) tended to buy this kind of food more often than women (37.5%).

With immigration, shopping for food was also influenced as at the present the respondents tended to buy more in larger stores (such as supermarkets and hipermarkets) and less in small specialised shops (Table 4).

**Table 4<sup>1</sup>**

	Germany			Portugal
	1 <sup>st</sup> gen (n=37)	2 <sup>nd</sup> gen (n=23)	Total (n=60)	Total (n=43)
Supermarket	83.8	91.4	91.6	14.0
Hipermarket	21.6	12.9	20.0	2.3
Small specialist shop	8.1	---	5.0	65.2
Directly from the producer	21.6	8.6	16.7	16.7
Ethnic shop	81.0	56.4	71.7	---
Market	---	---	---	27.9
Shop for biological products	---	4.3	1.7	---

About the same proportion of immigrants obtained some foods from their own production, both in Germany (62%) and Portugal (51%). In Germany the immigrants rented their own plot from which they obtained fresh vegetables and/or fruits, whereas in Portugal they were rural dwellers.

Quite a high percentage (71.7%) of immigrants bought some of the food products from an ethnic shop. In Germany, "ethnic shop" is a place where non-German foods are sold. In this category

<sup>1</sup> Percentage adds to more than 100% as respondents could give more than one answer.

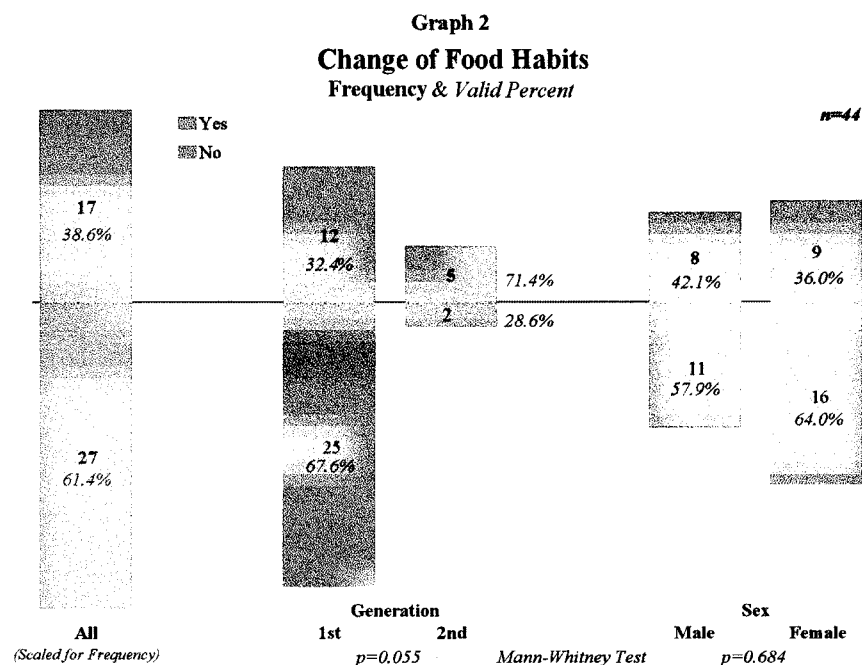
was also included the Portuguese van that sold “Portuguese” items, such as dried codfish, wine, “broa”, “chouriço”, smoked ham and others.

As in Mainzlar or Gießen (the closest town) there is no Portuguese shop, the immigrants bought the products in a Spanish shop, which had also some Portuguese products, mainly wine and dried codfish.

Some went to another town to buy the products in a Portuguese shop, such as Wetzlar, Frankfurt or Cologne. Four families mentioned they went to the Netherlands to buy fresh fish, as it is very difficult to obtain it in Germany. They had a deal to bring fish to other families, so that every two weeks one family had this job. Sometimes they also brought fresh vegetables from an open-air market.

Only 1.7% respondents bought some of the products in a shop for biologic products (“Reformhaus”, very common in Germany).

In relation to the self-perceived changes in food habits, most of the immigrants (61%) didn’t perceive having changed them after settling in Germany (Graph 2), but more respondents of the 2<sup>nd</sup> generation (71%) had changed compared to 32% of the first one.



When comparing sexes we can see that the men tended to answer they had changed their food habits more than women but the difference was not statistically significant.

Subjects were asked if they preferred to eat as they did in Portugal or as they do now and not if they preferred Portuguese or German food. 40.9% of the people said that they preferred to eat as they did in Portugal. The same number of people expressed equal preference. Only 18.2 % preferred their current eating habits.

56.3% of the 2<sup>nd</sup> generation respondents preferred to eat as they did in Portugal. This was in strong contrast to the 1<sup>st</sup> generation respondents, where only 32.1% preferred their former eating habits in Portugal. 18.8% of the 2<sup>nd</sup> generation and 53.4% of the 1<sup>st</sup> generation respondents expressed equal preference of current eating habits in Germany and former habits in Portugal.

62.3% of the immigrants missed some Portuguese food or dishes regardless of generations but women (69%) tended to miss more than males (54.2%).

Fish was the most missed food item (by 12 of the immigrants). Many other food items or Portuguese dishes were also missed: Sardine (5), "Broa" (5), Portuguese cheese (3), "Cozido à Portuguesa" (4) "Bacalhau cozido com grão e hortaliça" (3), "Leitão assado" (2), "Pastéis de Nata"(2), "Chouriço" (2), Smoked Ham (2) and many others. Two people said they missed all the Portuguese food items and all the Portuguese dishes and 3 people said that they missed the taste of food.

## **4.2. Trends in food consumption**

The differences of consumption frequency between Portugal and Germany of food items, food groups and Portuguese dishes were evaluated. The changes with migration can be analysed within the categories "increased", "decreased" or "maintained" which designate tendencies in the consumption of the food group and of each food item (see Chapter 3, Methodology).

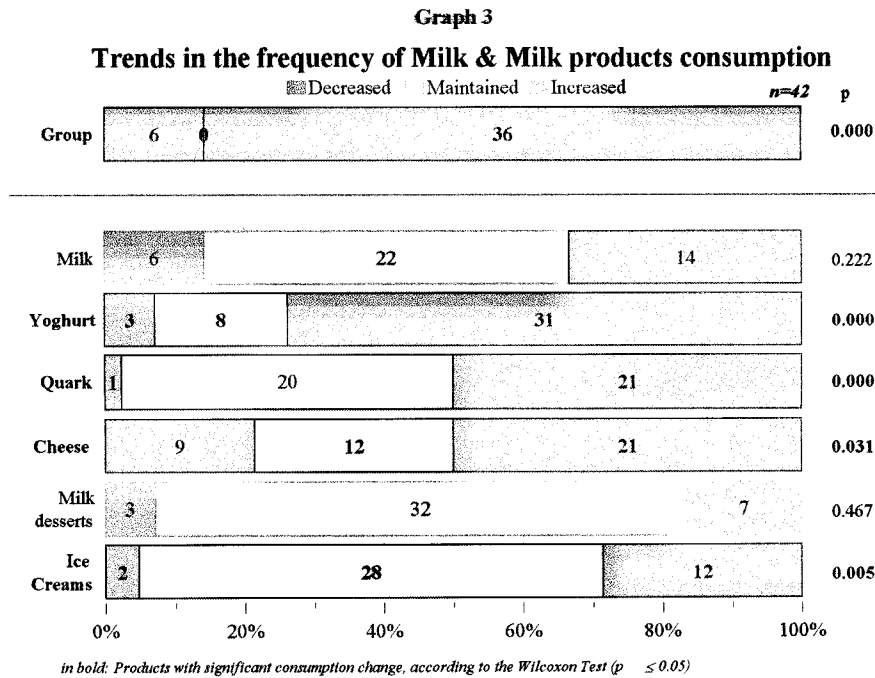
It is important to notice that a maintained frequency of consumption only means that no differences were observed in the frequency with which the food was included back in Portugal and at present, in Germany.

### **4.2.1. Food items**

Using the FFQ to compare present and past it was possible to evaluate the trends in the consumption of different food items.

### a) Milk and milk products

The general consumption of this group has increased very much, the difference being statistically significant (Graph 3).



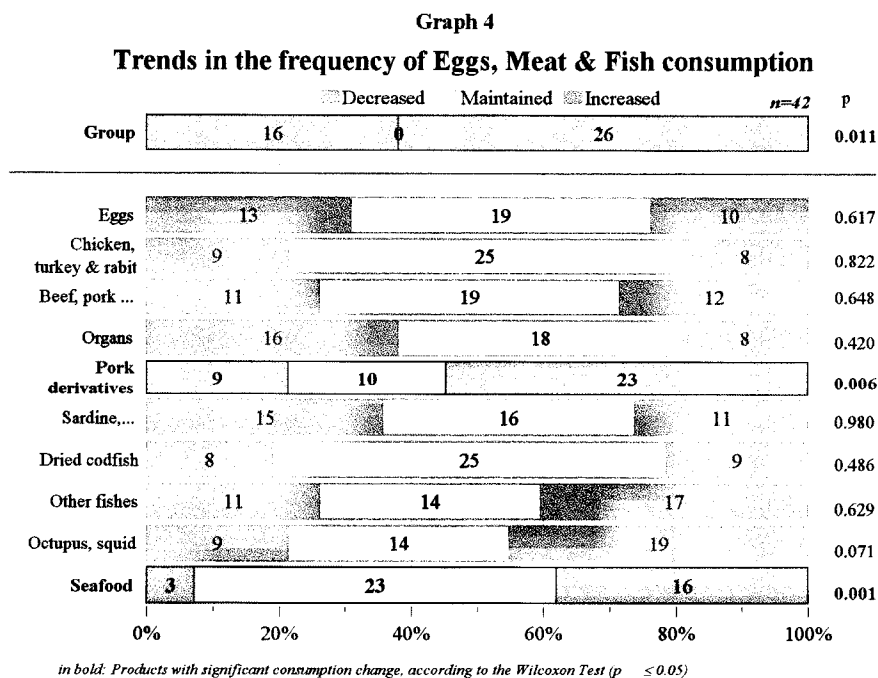
Although the frequency of milk consumption remained similar, the kind of milk changed with the immigration. In Portugal 65.6% of the respondents used to drink non-pasteurised milk, “directly from the cow”. When they drank pasteurised milk it was mostly the semi-skimmed milk (15.6%), which was also the kind of milk most consumed in Germany, by 63.4% of the immigrants. In Germany 25% of the respondents were using fat milk (3.5% fat) and only 9.6% skimmed milk (0.3% fat).

Yoghurt, quark<sup>2</sup>, cheese and ice creams had statistically significant increases in consumption frequency.

<sup>2</sup> Quark is a milk product very common in Germany but unknown in Portugal. It is a lactic acid dairy product used for direct consumption and for cooking and baking. It is usually either sweet with fruit or salty with herbs and spices. It is available with different levels of fat, up to 45% in the dry matter (Klostermeyer, 1993).

## b) Eggs, meat and fish

As a whole, the frequency of consumption of this group increased and the change was statistically significant due to an increase in pork products (sausages, salami and others) and seafood (Graph 4).



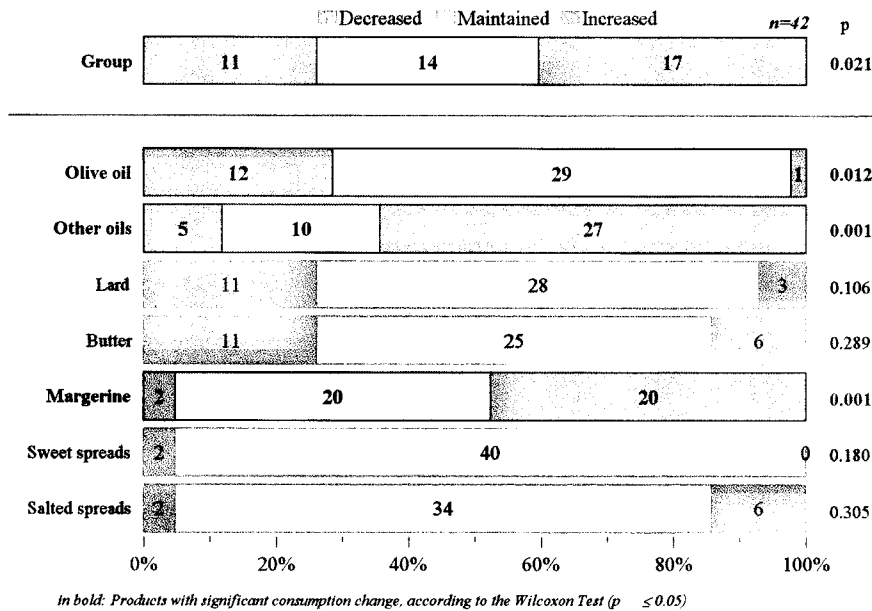
Even though dried codfish and sardine are food items not easily available in Germany the migrants tended to maintain their consumption.

## c) Oils and fats

Overall, there was an increase in the frequency of consumption of this group, mainly due to increased consumption of vegetable oils and margarine (Graph 5).

On the contrary, the frequency of consumption of olive oil tended to be maintained or decreased.

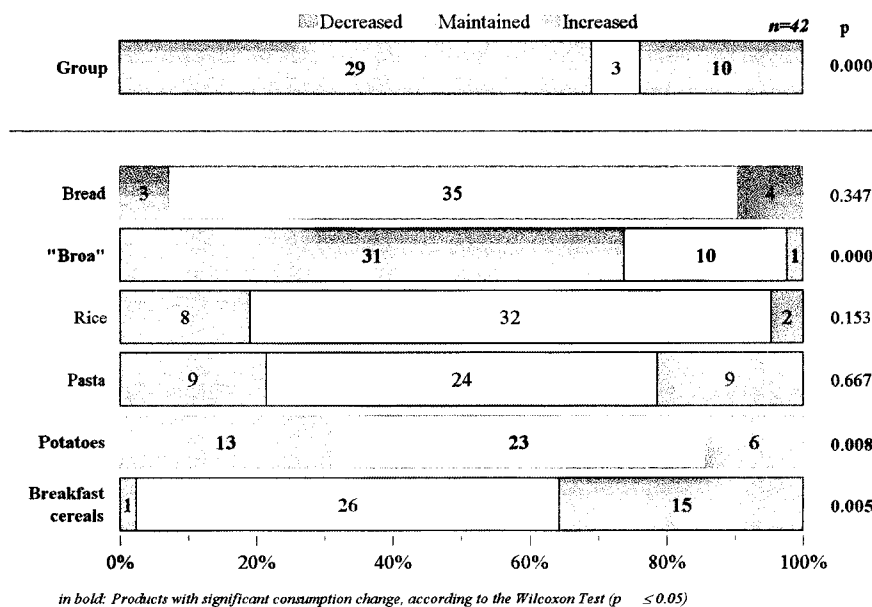
**Graph 5**  
**Trends in the frequency of Oils & Fats consumption**



#### d) Starchy foods

As a whole, this group had a very significant decrease in consumption (Graph 6).

**Graph 6**  
**Trends in the frequency of Starchy foods consumption**



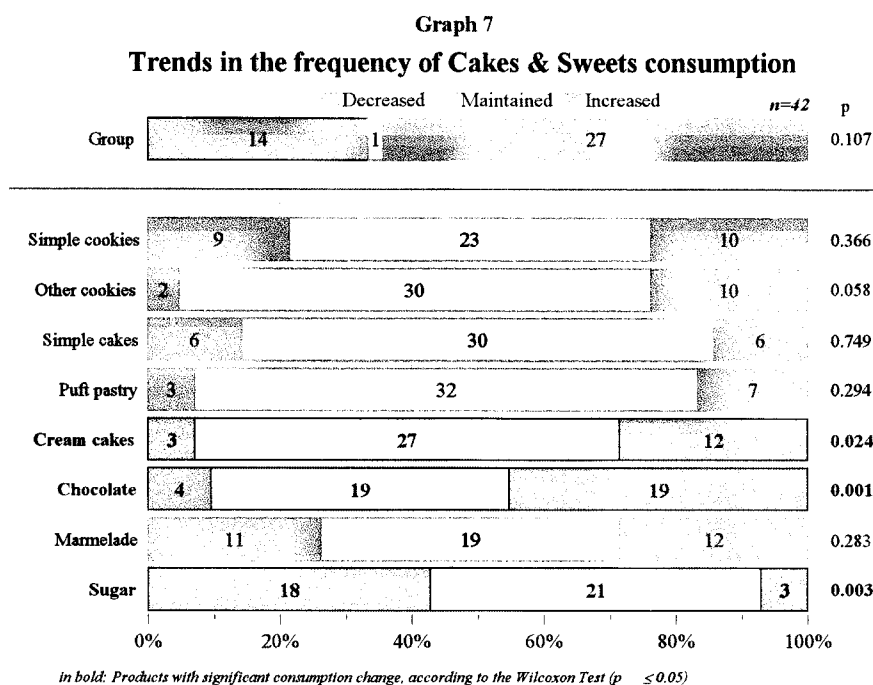
The consumption of bread was maintained but the kind of bread changed. In Portugal only 30% of the respondents used to eat dark bread compared to 68.3% in Germany.

Not surprisingly, “Broa”<sup>3</sup> had a statistically significant decrease in consumption. In Germany it is only sold on Portuguese shops or by the Portuguese van. Potatoes had also statistically significant decrease in consumption.

Frequency of consumption of breakfast cereals had increased, the difference being statistically significant. On the contrary, potatoes had a significant (p=0.008) decrease in consumption.

### e) Cakes and sweets

As a whole, the consumption of this food group was not changed by migration (Graph 7).



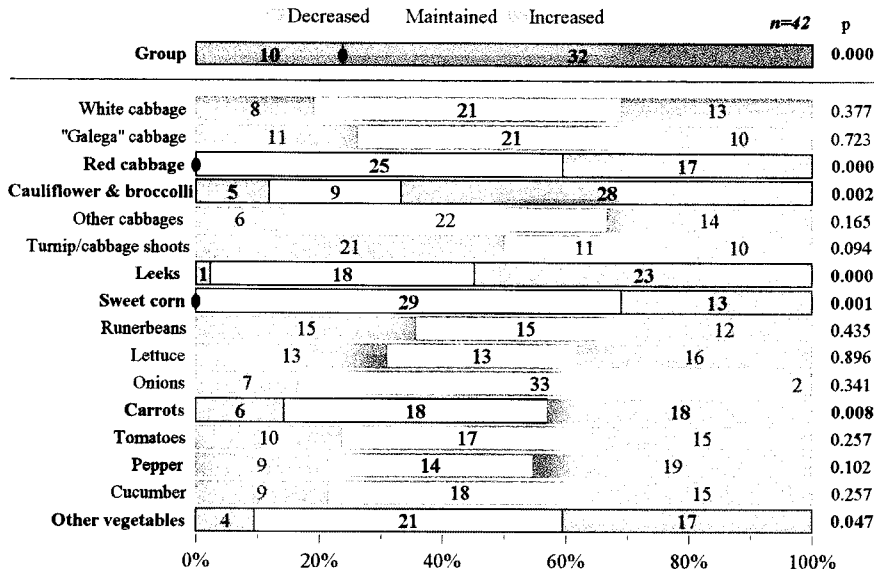
It was interesting to note that sugar was the only product in this group whose frequency has decreased markedly whereas cream cakes and chocolate increased.

### f) Fresh vegetables

The consumption of this group increased very much, the difference being statistically significant (Graph 8).

<sup>3</sup> “Broa” is a maize bread, traditionally baked in rural areas in Portugal, but also popular in urban areas nowadays.

**Graph 8**  
**Trends in the frequency of Fresh Vegetables consumption**



*In bold: Products with significant consumption change, according to the Wilcoxon Test ( $p \leq 0.05$ )*

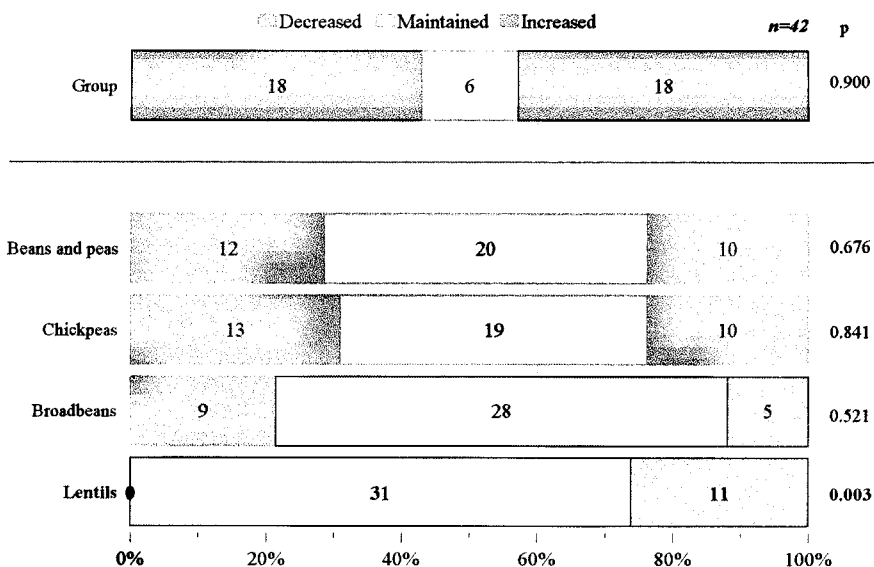
Red cabbage, cauliflower and broccoli, leeks, sweet corn, "other vegetables" were those which showed a larger increase.

Reversely, turnip and cabbage shoots consumption decreased.

**g) Pulses**

No changes were observed in the frequency of consumption of this food group (Graph 9). The only food item in which a statistically difference was observed were lentils, which increased.

**Graph 9**  
**Trends in the frequency of Pulses consumption**

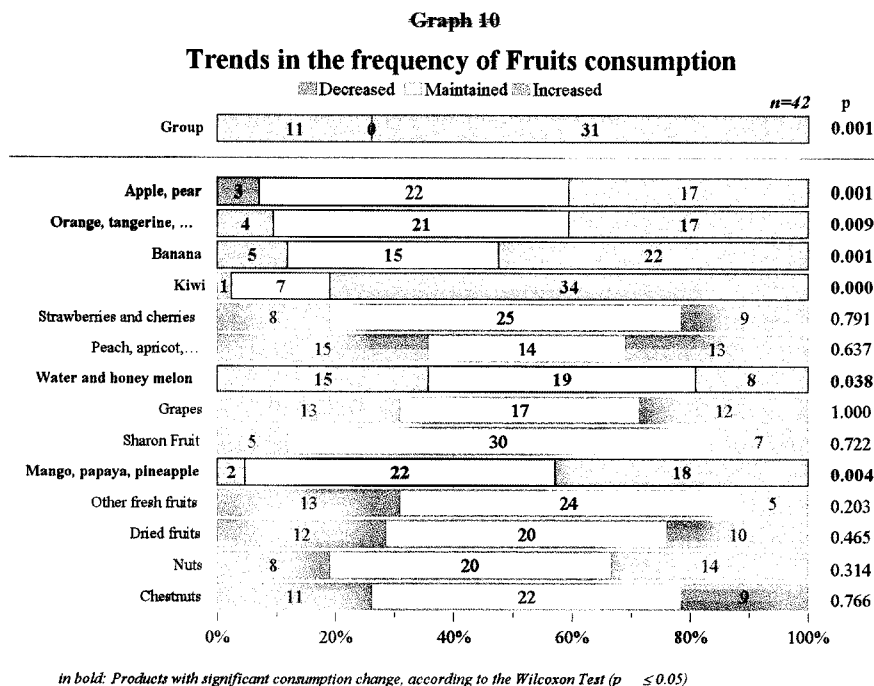


*In bold: Products with significant consumption change, according to the Wilcoxon Test ( $p \leq 0.05$ )*



## h) Fruits (fresh, dried and nuts)

The total consumption of this group increased, the difference being statistically significant. (Graph 10).



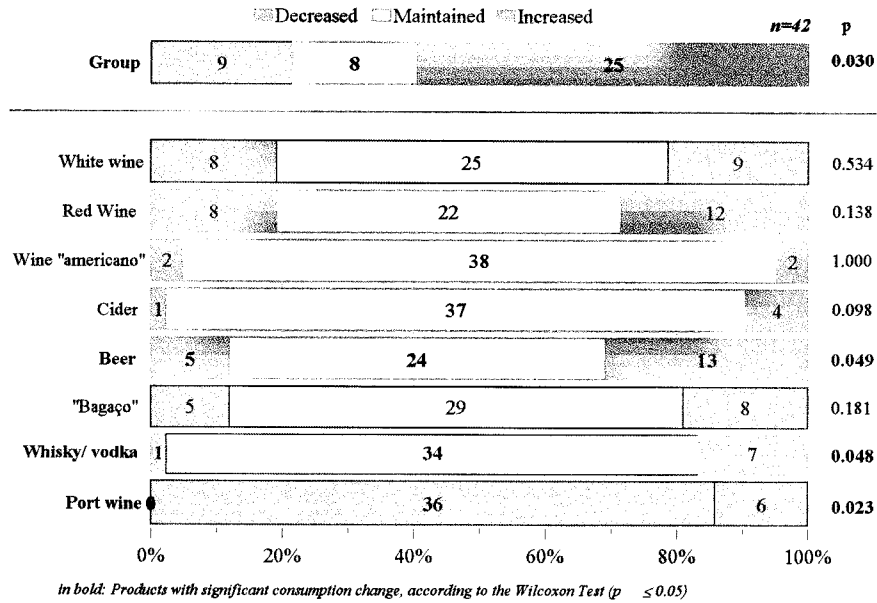
The frequency of consumption increased in most cases but was maintained for grapes, strawberries and cherries, Sharon fruit, dried fruits and nuts. It only decreased in the case of water and honey melon.

## i) Alcoholic Drinks

There was a statistically significant increase in the consumption of alcoholic drinks, which was noticeable in the case of beer, whisky/vodka and Port wine (Graph 11).<sup>4</sup>

<sup>4</sup> Wine "americano" is a special kind of wine, home made from specific grapes. "Bagaço"/"aguardente" are typical Portuguese spirits.

**Graph 11**  
**Trends in the frequency of Alcoholic Drinks consumption**



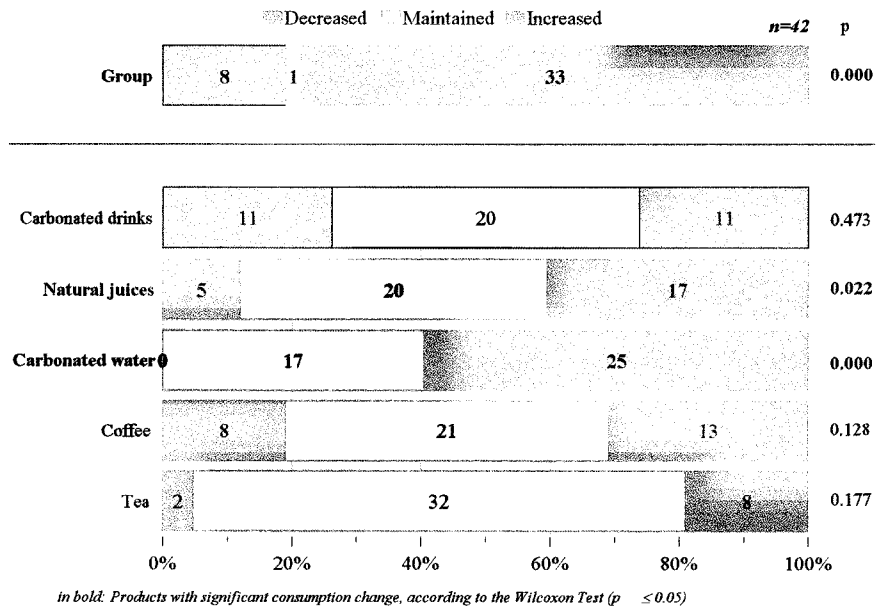
**j) Non-Alcoholic drinks**

There was a statistically significant increase in the consumption of this group (Graph 12).

Carbonated mineral water is the non-alcoholic drink that had a higher increase in consumption.

Natural juices had also a statistically significant increase in consumption.

**Graph 12**  
**Trends in the frequency of non-Alcoholic Drinks consumption**



## 4.2.2. Common Dishes

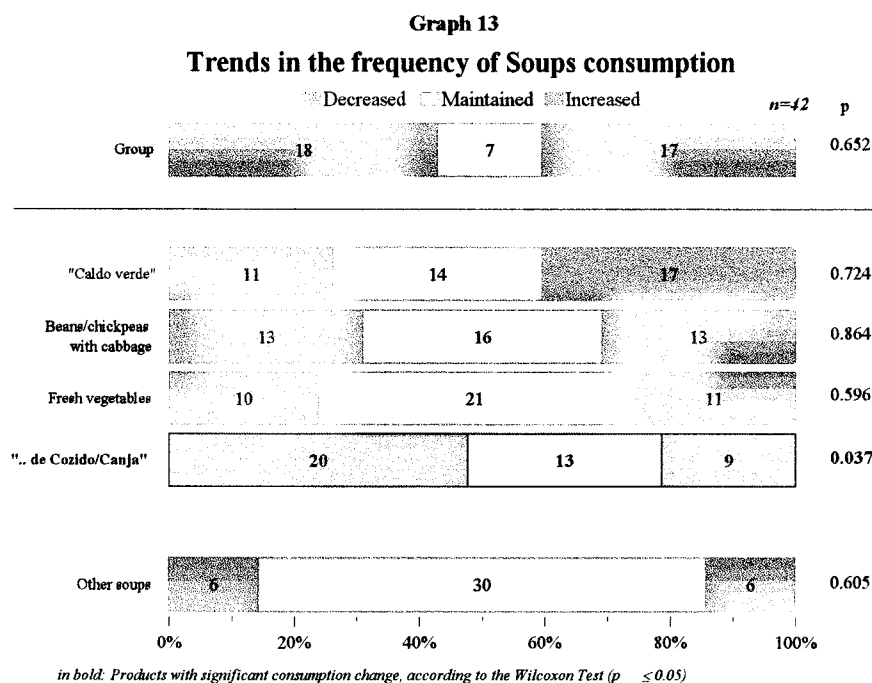
As already mentioned in Chapter 2, along with the evaluation in the consumption frequency of isolated food items / food groups it was decided to assess changes in the frequency of consumption of dishes. In this way, a group of dishes, considered to be representative of Portuguese food culture were selected as well as some dishes, commonly consumed worldwide as pizza and hamburger.

With the help of the DFQ it was possible to see whether the immigrants ate (in Germany and Portugal) some of the most commonly eaten dishes in Portugal and the evolution trends.

### a) Soups

Soups are common in Portugal and usually eaten before the main dish, at lunch and/or dinner (see Appendix 3 - Glossary of Portuguese Dishes).

As a whole, no differences were observed in the consumption of soups between Portugal and Germany, except in the case of "Sopa de Cozido" with a marked decrease (Graph 13).



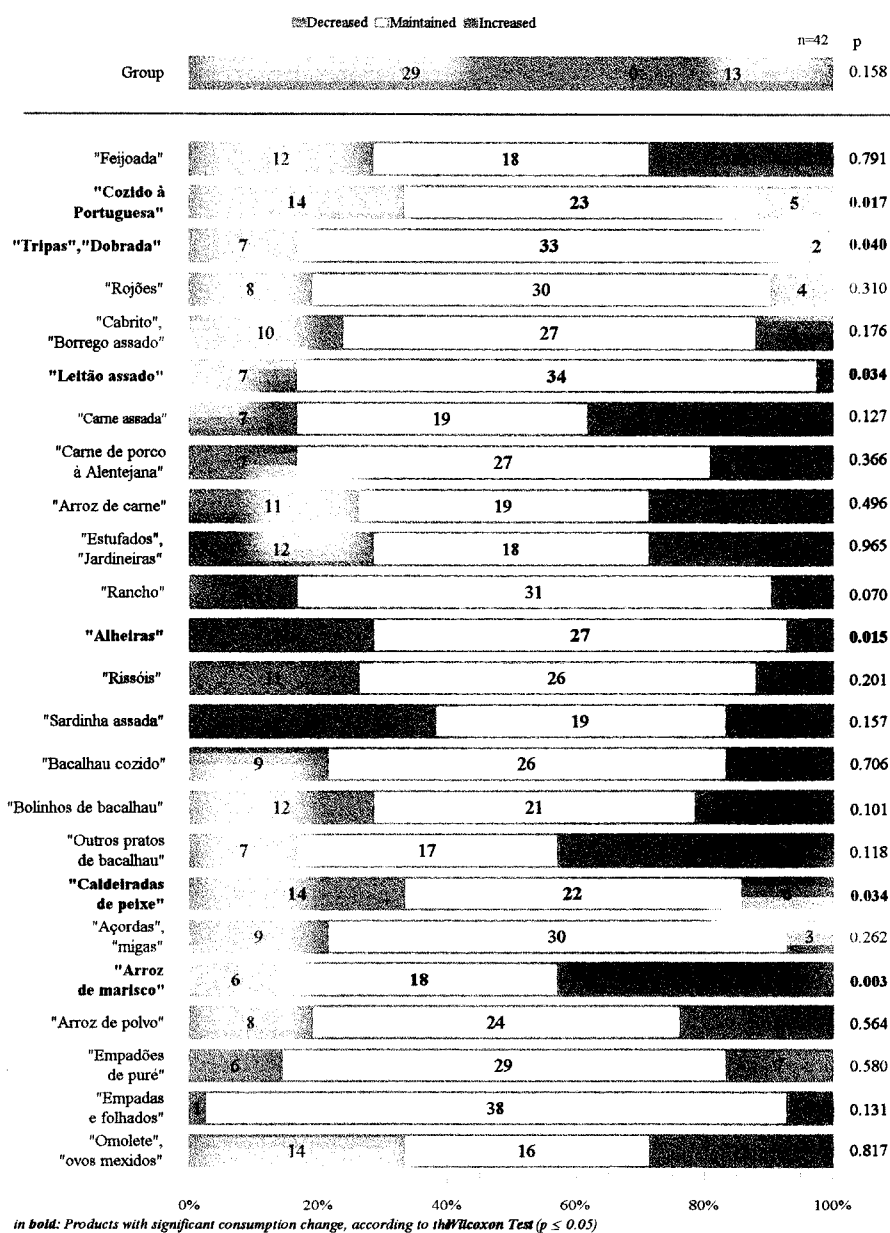
## b) Portuguese dishes

Four common meat dishes, “cozido”, “tripas/dobrada”, “leitão assado” and “alheira” had a statistically significant decrease in consumption, together with a fish dish “caldeirada”.

The only typical Portuguese dish that had statistically significant increased consumption (Graph 14) was a seafood dish “arroz de marisco” (see Appendix 3 – Glossary of Portuguese Dishes).

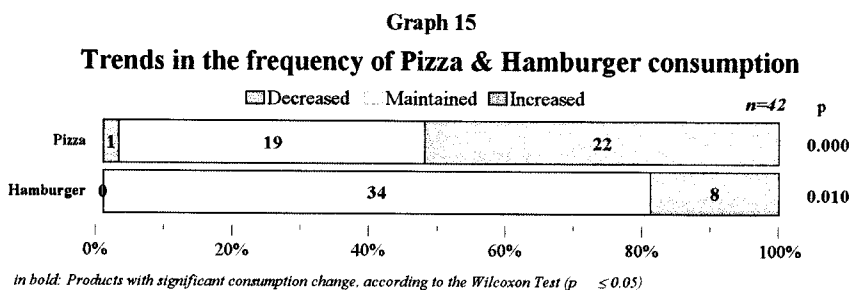
Graph 14

### Trends in the frequency of consumption of some Portuguese "typical" dishes



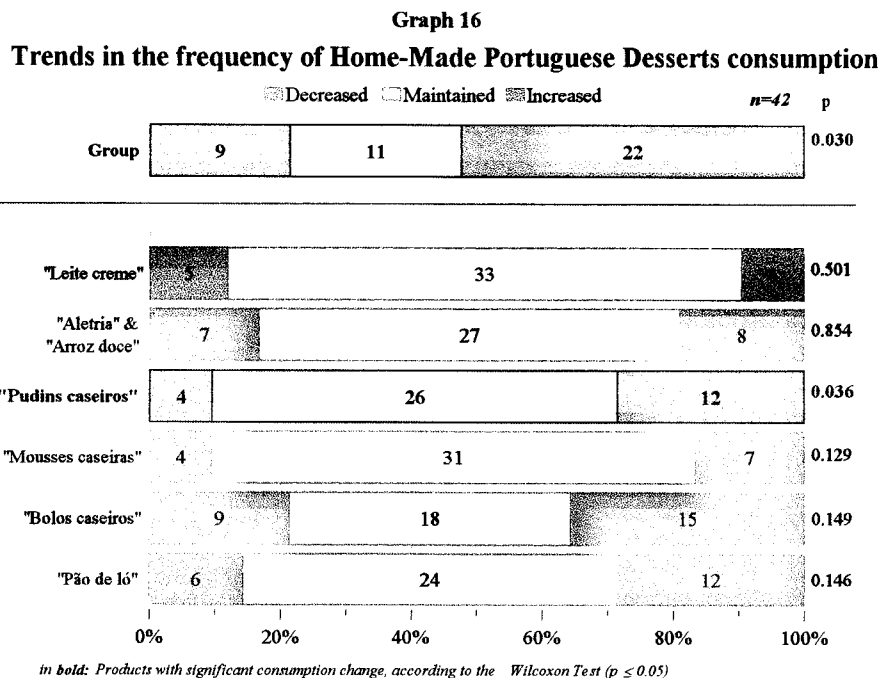
### c) Pizza and Hamburger

Pizza and hamburger can be regarded as markers of the globalisation of food habits and were thus included. As expected, the immigrants increased the consumption of both these products, especially Pizza (Graph 15).



### d) Home-made Portuguese Desserts

The immigrants increased the consumption of this group, the difference being statistically significant (Graph 16). Curiously, the increase was only statistically significant for “pudins caseiros” (see Appendix 3 - Glossary of Portuguese Dishes).



### 4.3. Meal patterns

Respondents were asked how was a “normal” day in terms of food consumption in Germany and

in Portugal, before migration.

In general the median number of meals/ eating occasions per day was the same, both in Germany and Portugal. In Portugal no one had less than 3 meals per day, the median being 5 for the 2<sup>nd</sup> generation (Table 5).

**Table 5**

	Germany			Portugal		
	Total	1 <sup>st</sup> gener.	2 <sup>nd</sup> gener.	Total	1 <sup>st</sup> gener.	2 <sup>nd</sup> gener.
Meals	4 (2-6)	4 (3-6)	4 (2-6)	4 (3-6)	4 (3-6)	5 (4-6)
Hot meals	1 (0-2)	1 (0-2)	1 (1-2)	2 (1-4)	2 (1-4)	2 (2-3)
Cold meals	3 (1-5)	3 (1-5)	2 (1-5)	2 (0-4)	2 (0-4)	2 (2-4)

For both generations, the number of hot meals per day decreased from a median of 2 in Portugal to a median of 1 in Germany. Reversely, the number of cold meals increased, from a median of 2 per day to a median of 3.

An important change due to migration was the decrease in the number of soups eaten daily from a median of two to none, in all groups (Table 6).

**Table 6**

	Germany			Portugal		
	Total	1 <sup>st</sup> gener.	2 <sup>nd</sup> gener.	Total	1 <sup>st</sup> gener.	2 <sup>nd</sup> gener.
Soups	0 (0-2)	0 (0-2)	0 (0-1)	2 (0-3)	2 (0-3)	2 (1-2)

In what concerns the designation of meals it was not possible to know what they were given because many immigrants had problems in naming them. This was due to the fact that the structure of the meal changed so much they could no longer call it as before (this was most seen at dinner) but also because many respondents worked in nightshifts, thus changing their meal patterns.

Soup and a hot dish at the same meal were seen in a very few cases in Germany (1.7% on the 1<sup>st</sup> meal, 3.3% on the second, 10.2% on the 3<sup>rd</sup>, 5.4% on the 4<sup>th</sup> meal and 14.3% on the 5<sup>th</sup>) and they tended to belong to the 1<sup>st</sup> generation more than to the second.

In Portugal this was a common practice: 54.8% of the respondents had a soup and a hot dish in the 2<sup>nd</sup> meal, 50% on the 3<sup>rd</sup>, 51.9% on the 4<sup>th</sup> and 66.7% on the 5<sup>th</sup> meal (this habit regards more lunch and dinner).

The majority of the immigrants ate most of their meals at home in Germany as well as in the past, in Portugal (Table 7).

Table 7

Generation	Country	Sample / Place	Meal				
			First	Second	Third	Fourth	Fifth
First	Germany	<i>n</i>	37	37	37	25	9
		at home	86.5	64.9	81.1	96	100
		at work / school	13.5	35.1	18.9	4	---
		others	---	---	---	---	---
	Portugal	<i>n</i>	37	37	37	22	6
		at home	89.2	64.9	81.1	90.9	83.3
		at work / school	10.8	35.1	16.5	9.1	16.7
		others	---	---	2.7	---	---
Second	Germany	<i>n</i>	23	23	22	13	4
		at home	65.2	34.8	63.6	92.3	100
		at work / school	34.8	56.5	36.4	7.7	---
		others	---	4.3	---	---	---
	Portugal	<i>n</i>	5	5	5	5	3
		at home	100	20	60	100	100
		at work / school	---	40	40	---	---
		others	---	40	---	---	---

Differences were found between the two generations in Germany as the first tended to had more meals at home while the second had more meals at work or at school (especially in the case of the 2<sup>nd</sup> and 3<sup>rd</sup> meals).

Differences were also found in relation to commensality (Table 8).

Table 8

Generation	Country	Sample/ Commens.	Meal				
			First	Second	Third	Fourth	Fifth
First	Germany	<i>n</i>	34	34	34	22	8
		with family	32.4	44.1	67.6	72.7	87.5
		alone	55.9	35.3	20.6	27.3	12.5
		with friends	11.8	20.6	11.8	---	---
	Portugal	<i>n</i>	34	34	34	19	5
		with family	76.5	67.6	91.2	89.5	100
		alone	14.7	8.8	5.9	5.3	---
		with friends	8.8	23.5	2.9	5.3	---
Second	Germany	<i>n</i>	23	23	22	13	4
		with family	13	13	40.9	46.2	75
		alone	56.5	26.1	18.2	46.2	25
		with friends	30.4	60.9	40.9	7.7	---
	Portugal	<i>n</i>	5	5	5	5	3
		with family	80	20	60	80	100
		alone	20	---	---	20	---
		with friends	---	80	40	---	---

It was possible to see that in Portugal people used to share meals with the family more often than they did in Germany and also that this happened more frequently with the 1<sup>st</sup> generation than with the 2<sup>nd</sup> one.

The present habit of having meals alone was now common in both generations but seldom observed in Portugal.

Mealtimes were also shared with friends or colleagues at work or school, a habit more common in the second generation.



## 5. Discussion

Baganha (1998) considers two periods in the Portuguese Emigration. A first flow, towards overseas, in the 1950's, more male dominated and a second one more directed to Europe. In this last the author considers a first wave in the 1960's more dominated by single or married men alone, and a second wave in the 1970's when families were called in order to establish the family reunification.

In this study it was also possible to observe two waves, one in the mid 60's and the other in the mid 70's. Firstly, men tended to immigrate alone and called for the family only when established, having house and some financial security, which would happen some years later (about 5). They constituted the first migrant Portuguese group living in the area of Gießen, which in the beginning experienced many difficulties. In the second wave, in the mid 70's, men came alone but would call the family only some months or one year later. This can be explained by the fact that these last had better living conditions in a shorter period of time than those who migrated first.

Most of the respondents came from rural areas of Portugal, which contradicts the results of Baganha (1998) when relates the direct migration to Europe with people that come from urban and industrial areas, but is sustained by other authors (Rocha-Trindade and Raveau, 1998). In the sample of this study only 6.7% of the people came from Lisbon, even though 21.7% were living there before the migration to Germany. This was an internal migration that may have not fulfilled the expectations of the respondents and, therefore, was followed by the migration to another country.

An indirect migration towards another country was seen in some cases, mainly to Africa. Some authors (Health Education Authority, 1997) saw that groups who have migrated via another country or those who have a past history of migration may show an additional difference in food habits as a result.

Quite a high percentage of the respondents thought that their health had worsened, when comparing the present and the time just before the migration. This can be explained mainly by the ageing (and maybe not the migration itself), as they are now in median 26 years older than when they first came from Portugal.

Both men and women had a statistically significant increase in weight that was, naturally, reflected in an increase in their BMI as the height was maintained. Most of the immigrants were now overweight and some can be considered already obese (Garrow and James, 1996). As for the self-perceived state of health, it is not possible to assume that these differences are due to immigration, but maybe more related to the ageing of the subjects. At the same time, this could be considered natural, as the tendency in the western society of nowadays is that people tend to be more overweight as they are less active and have higher energy intakes.

Nonetheless, as there were quite many differences between the BMI of the subjects in Portugal and in Germany we could suspect that with the migration the increase would be higher as for their counterparts. In a study by Almeida (1989) this increase in the BMI was also seen in a migrant group, where it is concluded that the changes in food habits contribute to the immigrants' obesity and may put them at increased risk of diabetes, hypertension and cardiovascular diseases.

Some authors (Koçtürk and Bruce, 1996) consider that migrants have a higher risk for the diet-related chronic diseases and a higher risk of suffering from imported disorders (which more applies to the developing countries). They are also more prone to having work accidents; they have higher absenteeism rates and early retirement than host country residents.

The ethnic shops have a very high importance for the immigrants, as sometimes it is the only place where they can find some of the Portuguese products they want. If foods are not available (or are only available far from the group) it is more difficult for the migrants to keep their traditional habits (den Hartog, 1996). This migrant group is quite persistent in having Portuguese food and dishes as they bring many products from Portugal, go to other towns to buy in the ethnic shops and even to another country (the Netherlands) in order to obtain fresh fish, "almost as the Portuguese fish".

Women tended to cook more often than men, even though with the migration an increase participation of men in cooking was seen, as in Portugal it used to be almost 100% a women's task. In this study we can not see if this influences the kind of food cooked, i. e., if there would be a different pattern in the foods prepared by gender. In other studies with migrant groups, women were also the main responsible for cooking (Lee, 1999) and that they had the most influence on foods served at home (Bush *et al*, 1996, Khamis *et al*, 1996). This last author discovered that while women tended to cook more in the traditional way, men cooked easier dishes that didn't

require so many cooking skills and took less time.

As the immigrants work very hard to achieve their aims, some doing extra shifts and having more than one job (mainly women) the remaining time was scarce, contributing to having less time to cook and, therefore, avoiding Portuguese dishes to some extent. The resistance of immigrants to cook traditional dishes because of the length of cooking was also reported by den Hartog (1996) and Almeida (1989).

The self-perceived change in the food habits gives us an impression that there were not that many differences in the way Portuguese people were eating before the migration. At the same time, the majority of the subjects misses some specific Portuguese food or dish, prefer the way they used to eat before migrating or express equal preference for both ways of eating. This indicates that a strong relation to the Portuguese food habits still exists, even in the second-generation migrants.

The immigrants increased the consumption of the food items mentioned in all groups, with exception for the starchy foods group. This fact is explained by the improvement in the economical status of the migrant groups in general and these immigrants in particular. The increase in the salaries increases the purchasing capacity and in many cases creates an imbalance in the diet. Some authors (Almeida, 1989; den Hartog *et al*, 1996; Neiderud, 1996; Koctürck, 1996) refer all or some of the following consequences: a usual increase of sucrose, fat and animal protein and a decrease in the content of dietary fibre within migrant groups.

In this study the changes were not studied at the nutrient level, but it is likely that the changes in the frequency of consumption of most foods have reflection in the energy and nutrient intake. For example, the consumption of cakes and sweets has increased but the consumption of sugar as a sweetener didn't. Most probably there was an increase in the consumption of short-chained Carbohydrates, together with a decrease in the long-chained ones, as the consumption of starchy foods decreased.

The consumption of total fat and saturated fat has possibly increased as well due to this increase in the cakes and sweets consumption.

Immigrants increased the general frequency of consumption of oils and fats but changes in the type of oil/fats were also observed. The consumption of olive oil decreased whereas other oils increased. Olive oil is more expensive than other oils and this difference is bigger in Germany.

Another possible explanation for the reduction of olive oil consumption is the fact that Germans don't have the habit of using olive oil and the immigrants lost the tradition of using it to cook like in the old times. The quality of olive oil existing in the supermarkets was also questioned by many. Olive oil was one of the products that the immigrants either bring from Portugal, buy in ethnic Portuguese or Spanish shop or buy to the "Portuguese van".

The decrease in the consumption of olive oil by migrant groups was also referred in other studies with Greek (Neiderud, 1996; Kouris-Blazos, 1996) and Turkish (Koçtürk, 1996) migrants.

The decrease of the consumption of lard can also be explained by the same reasons: not being common and easily found in Germany. In other migrant groups the decrease in the consumption of lard was also seen, e. g., the case of Vietnamese migrants in the UK (Carlson *et al*, 1982).

Butter was replaced in most cases by margarine. This can not be explained only by the immigration alone, as in Portugal this change was also seen in the last decades, at least at the availability level (INE, Balanças Alimentares, 1994 and 1999).

It is likely that consumption of animal protein has increased as the frequency of consumption of several animal protein foods (cheese, pork, seafood) has increased.

Most of these products are connected to higher social status and purchasing capacity. A good example is seafood, which is seen as conferring prestige, a "food for the rich". It is possible to see the increase in the consumption of the food item alone and also as a part of the Portuguese dish "arroz de marisco".

Migrants increased very much the intake of pork derivatives, such as sausages, salami, the very common German "Wurst". These are, probably, the so-called "German foods" that were included in a larger extent in the food habits of these immigrants.

Dried codfish, the Portuguese "bacalhau" had its consumption maintained even though it is not easy to find in Germany because German people do not eat it. Again the ethnic shops were useful to buy this kind of fish whereas at least fresh sea fish is seldom sold in the region of Hessen (located in the centre of Germany).

Koçtürk and Bruce (1996) consider that the content of dietary fibre in the diet tend to decrease with migration. Even though the immigrants of this study increased their vegetables and fruits

consumption as a whole, we can not say that the fibre amount increased because vegetable soups and other sources of dietary fibre decreased.

Staples are the principal component of most meals or are present in most dishes. They are considered to be the most important element in a meal because they are related to the background of a group of people, they show affiliation to a cuisine (Koçtürk, 1996). Regarding the Portuguese staples: rice, potatoes, pasta and bread (Almeida and Thomas 1996) we can see that some changes occurred, but not as dramatic as for foods from other groups. The consumption of bread and pasta was maintained but the other two foods decreased, especially potatoes. The decrease in soup consumption may be associated to the past worse living conditions as it is also often considered a "food of the poor".

In this group (Starchy foods) the biggest changes were seen in the decrease of "broa" consumption, which is easily explained by the fact that it is produced in Portugal. In Germany it is only sold in ethnic shops or the Portuguese van (immigrants also bring it when visiting Portugal).

The high increase in the consumption of breakfast cereals is due to the fact that it is a "new food", being unavailable and almost unknown in Portugal 26 years ago (median of the immigrants' stay).

A dramatic increase in the frequency of alcoholic drinks consumption was seen, which is explained by the increase in the immigrants' purchasing capacity. This, particularly the increase in the consumption of whisky and vodka, is related to the increase in the social and economical status. On the other hand, the increase in the consumption of beer is probably explained by the influence of the German drinking culture.

In this study not only the food consumption is studied but also the meal patterns. This was probably one of the aspects that changed the most.

On working days, the immigrants no longer had lunch and dinner in a "typical" Portuguese structure, which consists of vegetable soup, a "main" hot dish and a dessert (usually fruit). Vegetable soup, which was a part of each main meal in Portugal, no longer takes part in meals or only seldom, the difference being higher for the second generation. For the second generation the importance of vegetable soup may have been markedly reduced.

Soup and a dish together in the same meal leads to more time cooking; this could be an explanation for its decrease consumption. Another reason that can explain this reduction is that

soup tends to be related to a lower class and this group had an increase in the economical status, that may lead to avoidance of the “food for the poor”.

Immigrants tended to having lunch more often outside than before, with colleagues at the work place, or at school. As they usually ate in the canteen they had to eat what was available, “German” food. Lunch has been pointed out as changing more than dinner, within migrant groups (Khamis *et al*, 1996; den Hartog *et al*, 1996; Toumainen 1996).

On the other hand, dinner had also a dramatic change in many cases, having lost its designation as well. In German this meal is called “Abendbrot”, which means “the bread of the evening”. To eat bread, “Wurst” and cheese at this meal is common within the German population and a habit acquired by the migrants. This can be explained by a lack of time to cook due to working timetables, housework, taking care of children and also because of a loss of signification inherent to the meal.

The median of total number of meals per day only changed for the second generation (from 5 to 4 meals per day), and the immigrants’ minimum number of meals per day decreased from 3 to 2. This decrease in the number of meals per day with migration was also reported in a study with Asian students in the USA (Pan *et al*, 1999). The decrease may be explained as trying to spend less time cooking and eating to be able to do other things.

Holidays and traditional feasts are reserved for traditional foods (Koçtürk, 1996), a way of passing on cultural values and ideals and reinforcing ethnic identity (Devine, 1999). Within this population, food practices during the holidays, food beliefs and infant feeding practices were also evaluated with the help of a questionnaire developed specifically for that purpose. Data will be analysed and published elsewhere, thus complementing the present results.

## 6. Conclusions

A change in the food habits was observed for both the first and second-generation immigrants. This change was seen in the food consumed as well as in the meals' structure.

The consumption of milk products, eggs, meat and fish group, oils and fats (and the changes within this group), cakes and sweets increased, therefore with a possible chance that animal protein, total and saturated fat and sucrose increased therefore creating an unbalance in the immigrants' diet.

This, together with the fact that the immigrants are now heavier than in Portugal, most being overweight, puts them in a situation of obesity (or its risk in the future) and the risk of diabetes, cardiovascular diseases, the so-called diseases of the western societies.

The structure of the meals was probably what changed the most, and was noticeable, for instance, by the loss of designation of the meals itself, mainly seen in dinner. The meal is no longer done in a traditional Portuguese way, with soup, a main dish and a dessert.

A nostalgic feeling towards Portugal and specifically the Portuguese food is seen in both first and second generations. It is possible to see a strong connection with the country, its culture and food habits, even though some habits have changed.

Some differences were observed between generations in relation to the daily food habits and structure of the meal, with a larger distance from the Portuguese structure of meals for the second generation.

In summary, we can say that the present food habits of the Portuguese immigrants have changed but are still maintaining many of the traditional foods and ways of cooking. It is possible that the present food habits are somewhere in between those of the Portuguese and the German.

## References

- Afonso, C (1997). Validação de um questionário de frequência de consumo alimentar. Tese de licenciatura. ISCNAUP.
- Almeida, MD and Thomas, JE (1996). Nutritional consequences of migration. *Scandinavian Journal of Nutrition*, 40; suppl 31: S119-S121.
- Almeida, MDBVF (1989). Migration and changing food habits. A Study of the Cape Verdeans in Portugal - PhD Thesis. Department of Food and Nutrition Sciences. Nutrition Division. King's College London.
- Baganha, MI (1998). Portuguese Emigration after World War II. In: Pinto, AC: *Modern Portugal*.
- Bush, HM; Williams, RG; Anderson, AS; Lean, ME and Bradby H (1996). Symbolic meals of Asian and Italian women in Glasgow. *Scandinavian Journal of Nutrition*, 40; suppl 31: S87-S90.
- Carlson, E; Kipps, M and Thomson, J (1982). An evaluation of the traditional Vietnamese diet in the UK. *Human Nutrition: Applied Nutrition*. 36A: 107-115.
- Devine, CM; Sobal, J; Bisogni, CA and Connors, M (1999). Food choices in three Ethnic Groups: Interactions of Ideals, Identities and Roles. *Journal of Nutrition Education*, 31(2): 86-93.
- Garrow, JS and James, WP (1996). *Human Nutrition And Dietetics*. Churchill Livingstone Edition, Ninth edition. Edinburgh.
- den Hartog, AP; Ramsaransing, G; van der Heijden, L and van Staveren, WA (1996). Migration, nutrition and the elderly. Food habits of the Hindustani women in Utrecht, the Netherlands. *Scandinavian Journal of Nutrition*, 40; suppl 31: S87-S90.
- Health Education Authority (1997). *Nutrition in Minority Ethnic Groups: Asian and Afro-Caribbeans in the United Kingdom*. Briefing paper. University of Manchester and Medical Research Council. London.
- Instituto Nacional de Estatística. *Balança Alimentar Portuguesa 1990 – 1997* (1999). Lisboa.



Instituto Nacional de Estatística, colab Instituto Nacional de Estatística Ricardo Jorge. *Balança Alimentar Portuguesa 1980– 1992* (1994). Lisboa.

Khamis, TK; Thomas, J and Judd, P (1996). Eating habits of second generation South Asians in the UK. *Scandinavian Journal of Nutrition*, 40; suppl 31: S84-S86.

Klostermeyer, H (1993). Quarg and fromage frais. In: *Encyclopaedia of Food Science, Food Technology and Nutrition*, vol II. Academic Press. CIDADE: 842-846.

Koçtürk, T and Bruce, Å (1996). Human migration and nutrition; an overview. *Scandinavian Journal of Nutrition*, 40; suppl 31: S81-S83.

Koçtürk, T (1996). Structure and change in food habits. *Scandinavian Journal of Nutrition*, 40; suppl 31: S108-S110.

Kouris-Blazos, A *et al* (1996). Health and Nutrition status of elderly Greek migrants to Melbourne, Australia. *Age-Ageing*, 25 (3): 177-189.

Lee, S-K; Sobal, J and Frongillo, EA (1999). Acculturation, Food Consumption and Diet-related factors among Korean Americans. *Journal of Nutrition Education*, 31(6): 321-330.

Lopes, C; Fernandes, PV; Cabral, S and Barros, H. Questionários de frequência alimentar: efeitos da extensão da lista de alimentos na classificação dos inquiridos. *Arquivos de Medicina*, 8 (5): 291-294, 1994.

Monteiro, M and Santos, MR (1995). *Psicologia*, vol II. Porto Editora. Porto.

Monteiro, NG, Pinto, AC (1998). Cultural Myths and Portuguese National Identity. In: Pinto, AC: *Modern Portugal*.

Neiderud, J (1996). Food habits, nutrient intake and dental health among Greek and Swedish children. *Scandinavian Journal of Nutrition*, 40; suppl 31: S93-S94.

Pan, Y-L; Dixon, Z; Himburg, S and Huffman, F (1999). Asian students change their eating patterns after living in the United States. *Journal of the American Dietetic Association*, 99(1): 54-57.

- Peixoto, J (1993). A Emigração Portuguesa a partir de 1980: Factos Estatísticos e Modalidades de Evolução. In: Estudos demográficos, nº 31. Instituto Nacional de Estatística. Lisboa: 35-74
- Ribeiro, JL (1999). Investigação e avaliação em psicologia e saúde. Manuais Universitários 12. Série Metodologias. Climepsi Editores. Lisboa.
- Rocha-Trindade, MB; Cordeiro, AP; Horta, APB; Madeira, AI, Rego, MC and Viegas, T (1995). Sociologia das Migrações. Universidade Aberta. Lisboa.
- Rocha-Trindade, MB and Raveau, F (1998). Presence Portugaise en France. Centro de Estudos das Migrações e das Relações Culturais - CEMRI. Universidade Aberta. Lisboa.
- Secretaria de Estado das Comunidades Portuguesas (SECP) (1985 and 1988). Boletim Anual, Ministério dos Negócios Estrangeiros.
- Statisches Bundesamt Wiesbaden (1998). Ausländische Bevölkerung am 31.12.1998 nach Ausgewählten Staatsangehörigkeiten und Bundesländern.
- Toumainen, HM (1996). Changing food habits of Ghanaian students in Germany. Scandinavian Journal of Nutrition, 40; suppl 31: S104-S107.

## **Appendices**

Appendix 1: Questionnaire used to assess Food Habits

Appendix 2: Translation of the original Portuguese questionnaire

Appendix 3: Glossary of Portuguese Dishes



# Appendix 1

Questionnaire used to assess Food Habits

Nº \_\_\_\_\_

Data: \_\_ / \_\_ / 2000

### Hábitos Alimentares

**Finalidade:** Avaliação dos hábitos alimentares de uma população portuguesa residente na zona de Giessen (Alemanha) e comparação com os hábitos que tinha em Portugal.

#### Dados Pessoais:

Nome: \_\_\_\_\_

Sexo: M  F  Idade: \_\_\_ anos Data de nascimento: \_\_\_ / \_\_\_ / 19\_\_\_

Onde nasceu? \_\_\_\_\_

Estado civil: \_\_\_\_\_ Se casado(a), onde nasceu o cônjuge? \_\_\_\_\_

Onde vivia antes de vir para a Alemanha? \_\_\_\_\_

Há quanto tempo vive na Alemanha? \_\_\_\_\_

Já viveu noutra país mais do que um ano? Se sim, em qual? \_\_\_\_\_

Grau de escolaridade: \_\_\_\_\_

Profissão: \_\_\_\_\_

É a mesma que exercia em Portugal? Se não, qual? \_\_\_\_\_

Porque razões veio para a Alemanha?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Veio sózinho?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Considera-se integrado na Alemanha? (Responda utilizando uma escala de 1 a 5 em que 1 significa nada integrado e 5 muito integrado)

Nada 1  2  3  4  5  Muito

**Alimentação no dia-a-dia:**

1. Habitualmente quem é que cozinha em sua casa? E em Portugal como era?

---

---

2. Tem por hábito comprar refeições prontas ou pré-confeccionadas? Se sim, com que frequência e de que tipo?

---

---

Onde adquire habitualmente os produtos alimentares que consome?

Supermercado  Loja de produto biológicos (Reformhaus)

Mini-mercado / mercearia/pequenas lojas de especialidade

Directamente do produtor  Hipermercado  Loja étnica

3. E em Portugal? Onde costumava adquirir os alimentos?

---

4. Considera que mudou os seus hábitos alimentares desde que se mudou para a Alemanha? Se sim, como preferia comer, tal como em Portugal ou como actualmente?

---

---

5. Tem saudades de alguns alimentos ou preparados culinários de Portugal? Se sim, quais?

---

---

---

---

### **Estado de saúde**

1. Depois de se mudar para a Alemanha como acha que é o seu estado de saúde? Como era quando chegou e como é agora? É melhor ou pior do que em Portugal? Porquê?

---

---

2. Acha que a sua alimentação teve alguma influência na mudança do estado de saúde?

---

---

3. Sabe qual o peso e altura que tem agora? E antes, em Portugal?

---

---

### **Situação económica / social**

1. Como compara a sua situação económica que tem agora com a que tinha antes, em Portugal? Melhorou ou piorou?

---

---

2. Tem casa própria na Alemanha?  Sim  Não

E em Portugal?  Sim  Não

3. Costuma ir a Portugal? Com que frequência?

---

4. Gostaria de regressar de vez a Portugal? Se sim, quando?

---

---

## Hábitos actuais

<b>I. PROD. LÁCTEOS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
1. Leite - Qual?						
2. Iogurte						
3. Quark						
4. Queijo						
5. Sobremesas lácteas: pudins, etc (compradas feitas)						
6. Gelados						
<b>II. OVOS, CARNES E PEIXES</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
7. Ovos						
8. Frango, peru, coelho						
9. Carne vaca, porco / cabrito						
10. Órgãos e vísceras: fígado, língua, tripas, coração						
11. Produtos de salsicharia: fiambre, salame, salsichas						
12. Sardinha, carapau						
13. Bacalhau						
14. Outros peixes						
15. Polvo, lulas						
16. Marisco						
<b>III. ÓLEOS E GORDURAS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
17. Azeite						
18. Óleos						
19. Banha						
20. Manteiga						
21. Margarina						
22. Pastas doces para barrar Ex. Nutela, m de amendoim						
23. Pastas salgadas para barrar						
<b>IV. PÃO, CEREAIS E SIMILARES</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
24. Pão - Qual?						
25. Broa						
26. Arroz						
27. Massas: esparguete, etc						
28. Batatas						
29. Muesli e outros cereais de pequeno almoço						

<sup>1</sup> Preencher com \*, caso não conhecesse o alimento / preparação



## Hábitos actuais

<b>V. DOCES E PASTÉIS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
30. Bolachas tipo maria ou água e sal						
31. Outras bolachas ou biscoitos, recheadas, de chocolate						
32. Pastéis secos						
33. Pastéis folhados						
34. Pastéis com creme, com recheio						
35. Chocolate em barra ou em pó, rebuçados, gomas						
36. Marmelada, compota, geleia, mel						
37. Açúcar						
<b>VI. HORTALIÇAS E LEGUMES SECOS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
38. Couve branca						
39. Couve galega						
40. Couve roxa						
41. Couve-flor, bróculos						
42. Outras couves						
43. Grelos, nabiças						
44. Alho francês						
45. Milho doce						
46. Feijão verde						
47. Alface, agrião						
48. Cebola						
49. Cenoura						
50. Tomate						
51. Pimento						
52. Pepino						
53. Outros produtos hortícolas						
54. Feijão, ervilhas						
55. Grão de bico						
56. Favas						
57. Lentilhas						

<sup>1</sup> Preencher com \*, caso não conhecesse o alimento / preparação

## Hábitos actuais

<b>VII. FRUTOS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
58. Maçã, pêra						
59. Laranjas, tangerinas						
60. Banana						
61. Kiwi						
62. Morangos e cerejas						
63. Pêssegos, damascos, nectarinas, ameixas						
64. Melão, melancia						
65. Uvas						
66. Diospiro						
67. Manga, papaia, ananás						
68. Outros frutos frescos						
69. Figos, tâmaras ou outros frutos secos						
70. Frutos gordos: amêndoas, avelãs, amendoins						
71. Castanhas						
<b>VIII. BEBIDAS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
72. Vinho branco						
73. Vinho tinto						
74. Vinho americano, morangueiro						
75. Vinho de maçã						
76. Cerveja						
77. Bagaço, aguardente						
78. Whisky, vodka						
79. Vinho do Porto ou Madeira						
80. Refrigerantes com gás (coca-cola, sprite, sumol)						
81. Sumos naturais						
82. Água com gás						
83. Café						
84. Chá preto						

<sup>1</sup> Preencher com \*, caso não conhecesse o alimento / preparação

## Hábitos actuais

PREPARAÇÕES CULINÁRIAS	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
1. Caldo verde						
2. Sopa de feijão / grão com hortaliça						
3. Sopa de legumes (outros)						
4. Canja / sopa de cozido						
5. Outras sopas						
6. Feijoada de carne						
7. Cozido à Portuguesa						
8. Tripas / Dobrada						
9. Rojões						
10. Cabrito / borrego assado						
11. Leitão assado						
12. Carne assada						
13. Carne de porco à Alentejana						
14. Arroz de carne						
15. Estufados / Jardineiras						
16. Rancho						
17. Alheiras (com batata cozida e grelos)						
18. Rissóis (de carne, peixe, etc)						
19. Sardinhas assadas						
20. Bacalhau cozido						
21. Bolinhos de bacalhau						
22. Outros pratos de bacalhau						
23. Caldeirada de peixe						
24. Açordas e migas						
25. Arroz de marisco						
26. Arroz de polvo						
27. Empadões (com puré)						
28. Empadas e folhados de carne / peixe						
29. Omeletes e ovos mexidos						
30. Hamburguer						
31. Pizza						
32. Leite creme						
33. Aletria / arroz doce / tapioca						
34. Pudins caseiros						
35. Mousses caseiras						
36. Bolos caseiros						
37. Pão de ló						
38. Algum outro prato que queira referir: _____						

<sup>1</sup> Preencher com \*, caso não conhecesse o alimento / preparação

## Hábitos anteriores

<b>I. PROD. LÁCTEOS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
1. Leite - Qual?						
2. Iogurte						
3. Quark						
4. Queijo						
5. Sobremesas lácteas: pudins, etc (compradas feitas)						
6. Gelados						
<b>II. OVOS, CARNES E PEIXES</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
7. Ovos						
8. Frango, peru, coelho						
9. Carne vaca, porco / cabrito						
10. Órgãos e vísceras: fígado, língua, tripas, coração						
11. Produtos de salsicharia: fiambre, salame, salsichas						
12. Sardinha, carapau						
13. Bacalhau						
14. Outros peixes						
15. Polvo, lulas						
16. Marisco						
<b>III. ÓLEOS E GORDURAS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
17. Azeite						
18. Óleos						
19. Banha						
20. Manteiga						
21. Margarina						
22. Pastas doces para barrar Ex. Nutela, m de amendoim						
23. Pastas salgadas para barrar						
<b>IV. PÃO, CEREAIS E SIMILARES</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
24. Pão - Qual?						
25. Broa						
26. Arroz						
27. Massas: esparguete, etc						
28. Batatas						
29. Muesli e outros cereais de pequeno almoço						

<sup>1</sup> Preencher com \*, caso não conhecesse o alimento / preparação

## Hábitos anteriores

<b>V. DOCES E PASTÉIS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
30. Bolachas tipo maria ou água e sal						
31. Outras bolachas ou biscoitos, recheadas, de chocolate						
32. Pastéis secos						
33. Pastéis folhados						
34. Pastéis com creme, com recheio						
35. Chocolate em barra ou em pó, rebuçados, gomas						
36. Marmelada, compota, geleia, mel						
37. Açúcar						
<b>VI. HORTALIÇAS E LEGUMES SECOS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
38. Couve branca						
39. Couve galega						
40. Couve roxa						
41. Couve-flor, bróculos						
42. Outras couves						
43. Grelos, nabiças						
44. Alho francês						
45. Milho doce						
46. Feijão verde						
47. Alface, agrião						
48. Cebola						
49. Cenoura						
50. Tomate						
51. Pimento						
52. Pepino						
53. Outros produtos hortícolas						
54. Feijão, ervilhas						
55. Grão de bico						
56. Favas						
57. Lentilhas						

<sup>1</sup> Preencher com \*, caso não conhecesse o alimento / preparação

## Hábitos anteriores

<b>VII. FRUTOS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
58. Maçã, pêra						
59. Laranjas, tangerinas						
60. Banana						
61. Kiwi						
62. Morangos e cerejas						
63. Pêssegos, damascos, nectarinas, ameixas						
64. Melão, melancia						
65. Uvas						
66. Diospiro						
67. Manga, papaia, ananás						
68. Outros frutos frescos						
69. Figos, tâmaras ou outros frutos secos						
70. Frutos gordos: amêndoas, avelãs, amendoins						
71. Castanhas						
<b>VIII. BEBIDAS</b>	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
72. Vinho branco						
73. Vinho tinto						
74. Vinho americano, morangueiro						
75. Vinho de maçã						
76. Cerveja						
77. Bagaço, aguardente						
78. Whisky, vodka						
79. Vinho do Porto ou Madeira						
80. Refrigerantes com gás (coca-cola, sprite, sumol)						
81. Sumos naturais						
82. Água com gás						
83. Café						
84. Chá preto						

<sup>1</sup> Preencher com \*, caso não conhecesse o alimento / preparação

## Hábitos anteriores

PREPARAÇÕES CULINÁRIAS	1 ou + por dia	4 a 6 por sem.	1 a 3 por sem.	1 a 3 por mês	Nunca ou < 1 mês <sup>1</sup>	Sazo nal
1. Caldo verde						
2. Sopa de feijão / grão com hortaliça						
3. Sopa de legumes (outros)						
4. Canja / sopa de cozido						
5. Outras sopas						
6. Feijoada de carne						
7. Cozido à Portuguesa						
8. Tripas / Dobrada						
9. Rojões						
10. Cabrito / borrego assado						
11. Leitão assado						
12. Carne assada						
13. Carne de porco à Alentejana						
14. Arroz de carne						
15. Estufados / Jardineiras						
16. Rancho						
17. Alheiras (com batata cozida e grelos)						
18. Rissóis (de carne, peixe, etc)						
19. Sardinhas assadas						
20. Bacalhau cozido						
21. Bolinhos de bacalhau						
22. Outros pratos de bacalhau						
23. Caldeirada de peixe						
24. Açordas e migas						
25. Arroz de marisco						
26. Arroz de polvo						
27. Empadões (com puré)						
28. Empadas e folhados de carne / peixe						
29. Omeletes e ovos mexidos						
30. Hamburguer						
31. Pizza						
32. Leite creme						
33. Aletria / arroz doce / tapioca						
34. Pudins caseiros						
35. Mousses caseiras						
36. Bolos caseiros						
37. Pão de ló						
38. Algum outro prato que queira referir: _____						

<sup>1</sup> Preencher com \*, caso não conhecesse o alimento / preparação

## DIA ALIMENTAR - Actualmente

1º Refeição	Nome	Hora	Local	Com quem
Descrição:				

2º Refeição	Nome	Hora	Local	Com quem
Descrição:				

3º Refeição	Nome	Hora	Local	Com quem
Descrição:				

4º Refeição	Nome	Hora	Local	Com quem
Descrição:				

5º Refeição	Nome	Hora	Local	Com quem
Descrição:				

6º Refeição	Nome	Hora	Local	Com quem
Descrição:				

7º Refeição	Nome	Hora	Local	Com quem
Descrição:				



## DIA ALIMENTAR - Antigamente

1º Refeição Nome Hora Local Com quem \_\_\_\_\_

Descrição:

---

---

---

2º Refeição Nome Hora Local Com quem \_\_\_\_\_

Descrição:

---

---

---

3º Refeição Nome Hora Local Com quem \_\_\_\_\_

Descrição:

---

---

---

4º Refeição Nome Hora Local Com quem \_\_\_\_\_

Descrição:

---

---

---

5º Refeição Nome Hora Local Com quem \_\_\_\_\_

Descrição:

---

---

---

6º Refeição Nome Hora Local Com quem \_\_\_\_\_

Descrição:

---

---

---

7º Refeição Nome Hora Local Com quem \_\_\_\_\_

Descrição:

---

---

---



# Appendix 2

Translation of the original Portuguese questionnaire

Nº \_\_\_\_\_

Date: \_\_/\_\_/2000

### Food Habits

**Aim of the study:** To evaluate the food habits of a Portuguese population living in the area of Giessen (Germany) and compare them with the habits they had in Portugal.

#### Personal data:

Name: \_\_\_\_\_

Sex: M  F  Age: \_\_\_ years Date of birth: \_\_\_ / \_\_\_ / 19\_\_\_

Place of birth? \_\_\_\_\_

Marital status: \_\_\_\_\_ If married, place of birth of the husband/ wife? \_\_\_\_\_

Where were you living before you came to Germany? \_\_\_\_\_

For how many years have you lived in Germany? \_\_\_\_\_

Have you lived in another country for longer than one year? If so, which? \_\_\_\_\_

Up to what level did you study? \_\_\_\_\_

Profession: \_\_\_\_\_

Is it the same profession as in Portugal? If not, which profession did you have in Portugal? \_\_\_\_\_

Why did you come to live in Germany?

Did you come alone?

Do you consider yourself to be integrated here in Germany? (Please answer using a scale from 1 to 5, in which 1 means not integrated and 5 fully integrated)

Not integrated 1  2  3  4  5  Fully integrated

**Food in everyday's life:**

1. Usually who cooks in your home? And in Portugal, who was it?

---

---

2. Do you usually buy ready or pre-cooked food? If so, how often and which kind?

---

---

From where do you usually obtain the food you eat?

Supermarket  Shop for biologic products (Reformhaus)

Mini-market/ grocery/specialist shops

Directly from the manufacturer  Hipermarket  Ethnic shop

3. And in Portugal? From where did you usually obtain the food?

---

---

4. Do you think you have changed your food habits since you moved to Germany? If so, do you prefer to eat, as you did in Portugal or as you do now?

---

---

5. Do you miss some food or special Portuguese dishes? If so, which ones?

---

---

---

---

**State of health**

1. Upon your arrival in Germany how would you describe your health? How was it when you arrived in Germany and how is it now? Is it better or worse than it was in Portugal? Why?

---

---

2. Do you think that the food habits you have now, have had some influence on your health?

---

---

3. Do you know your weight and height now? And what were they in Portugal?

---

---

**Economical/ social status**

1. How do you compare your present economical status with the one you had in Portugal? Has it improved or worsened?

---

---

2. Do you have your own house in Germany?  Yes  No  
And in Portugal?  Yes  No

3. Do you go to Portugal? How often?

---

4. Would you like to return to Portugal for good? If so, when?

---

---

**Present food habits**

<b>I. MILK PRODUCTS</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
1. Milk – which kind?						
2. Yoghurt						
3. Quark						
4. Cheese						
5. Milk desserts						
6. Ice creams						
<b>II. EGGS, CHEESE AND FISH</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
7. Eggs						
8. Chicken, turkey, rabbit						
9. Beef, pork/ lamb						
10. Organs: liver, tongue, intestines, heart						
11. Pork derivatives ham, salami, sausages						
12. Sardine, mackerel						
13. Dried codfish						
14. Other fishes						
15. Octopus, squid						
16. Seafood						
<b>III. OILS AND FAT</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
17. Olive oil						
18. Other oils						
19. Lard						
20. Butter						
21. Margerine						
22. Sweet spreads for bread Eg. Nutela, Peanut butter						
23. Salted spreads for bread						
<b>IV. BREAD, CEREALS AND OTHERS</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
24. Bread – Which kind?						
25. "Broa" (special kind of bread)						
26. Rice						
27. Pasta						
28. Potatoes						
29. Muesli and other breakfast cereals						

<sup>1</sup> Fill in with \*, in case the food/dish is not known

## Present food habits

<b>V. SWEETS AND CAKES</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
30. Simple cookies: digestive, butter						
31. Other cookies or biscuits: with chocolate,...						
32. Sponge cakes						
33. Puft pastries						
34. Cream cakes, cakes with filling						
35. Chocolate (bar or powder), sweets						
36. Marmelade, jam, preserve, honey						
37. Sugar						
<b>VI. VEGETABLES</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
38. White Cabbage						
39. Cabbage "galega"						
40. Red cabbage						
41. Cauli-flower, broccoli						
42. Other cabbages						
43. Turnip and cabbage shoots						
44. Leeks						
45. Sweetcorn						
46. Runerbeans						
47. Lettuce, watercress						
48. Onions						
49. Carrots						
50. Tomatoes						
51. Pepper						
52. Cucumber						
53. Other vegetables						
54. Beans, peas						
55. Chickpeas						
56. Broadbeans						
57. Lentils						

<sup>1</sup> Fill in with \*, in case the food/dish is not known

## Present food habits

<b>VII. FRUITS</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
58. Apple, pear						
59. Orange, tangerine						
60. Banana						
61. Kiwi						
62. Strawberries and cherries						
63. Peach, apricot, plum						
64. Water and honey melon						
65. Grapes						
66. Sharon fruit						
67. Mango, papaya, pineapple						
68. Other fresh fruits						
69. Dried fruits: prune						
70. Nuts						
71. Chestnuts						
<b>VIII. DRINKS</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
72. White wine						
73. Red wine						
74. Wine "americano", "morangueiro"						
75. Cider						
76. Beer						
77. "Bagaço", "aguardente"						
78. Whisky, vodka						
79. "Vinho do Porto" or Madeira						
80. Carbonated soft drinks (coke, sprite,...)						
81. Natural juices						
82. Carbonated mineral water						
83. Coffee						
84. Tea						

<sup>1</sup> Fill in with \*, in case the food/dish is not known



## Present food habits

DISHES	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
1. Caldo verde						
2. Sopa de feijão/ grão com hortaliça						
3. Sopa de legumes (outros)						
4. Canja/ sopa de cozido						
5. Outras sopas						
6. Feijoada de carne						
7. Cozido à Portuguesa						
8. Tripas/ Dobrada						
9. Rojões						
10. Cabrito/ borrego assado						
11. Leitão assado						
12. Carne assada						
13. Carne de porco à Alentejana						
14. Arroz de carne						
15. Estufados/ Jardineiras						
16. Rancho						
17. Alheiras (com batata cozida e grelos)						
18. Rissóis (de carne, peixe, etc)						
19. Sardinhas assadas						
20. Bacalhau cozido						
21. Bolinhos de bacalhau						
22. Outros pratos de bacalhau						
23. Caldeirada de peixe						
24. Açordas e migas						
25. Arroz de marisco						
26. Arroz de polvo						
27. Empadões (com puré)						
28. Empadas e folhados de carne/ peixe						
29. Omeletes e ovos mexidos						
30. Hamburguer						
31. Pizza						
32. Leite creme						
33. Aletria/ arroz doce/ tapioca						
34. Pudins caseiros						
35. Mousses caseiras						
36. Bolos caseiros						
37. Pão de ló						
38. Algum outro prato que queira referir: _____						

<sup>1</sup> Fill in with \*, in case the food/dish is not known

## Past food habits

<b>I. MILK PRODUCTS</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
1. Milk – which kind?						
2. Yoghurt						
3. Quark						
4. Cheese						
5. Milk desserts						
6. Ice creams						
<b>II. EGGS, CHEESE AND FISH</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
7. Eggs						
8. Chicken, turkey, rabbit						
9. Beef, pork/ lamb						
10. Organs: liver, tongue, intestines, heart						
11. Pork derivatives ham, salami, sausages						
12. Sardine, mackerel						
13. Dried codfish						
14. Other fishes						
15. Octopus, squid						
16. Seafood						
<b>III. OILS AND FAT</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
17. Olive oil						
18. Other oils						
19. Lard						
20. Butter						
21. Margerine						
22. Sweet spreads for bread Eg. Nutela, Peanut butter						
23. Salted spreads for bread						
<b>IV. BREAD, CEREALS AND OTHERS</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
24. Bread – Which kind?						
25. "Broa" (special kind of bread)						
26. Rice						
27. Pasta						
28. Potatoes						
29. Muesli and other breakfast cereals						

<sup>1</sup> Fill in with \*, in case the food/dish is not known

## Past food habits

<b>V. SWEETS AND CAKES</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
30. Simple cookies: digestive, butter						
31. Other cookies or biscuits: with chocolate,...						
32. Sponge cakes						
33. Puft pastries						
34. Cream cakes, cakes with filling						
35. Chocolate (bar or powder), sweets						
36. Marmelade, jam, preserve, honey						
37. Sugar						
<b>VI. Vegetables</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
38. White Cabbage						
39. Cabbage "galega"						
40. Red cabbage						
41. Cauli-flower, broccoli						
42. Other cabbages						
43. Turnip and cabbage shoots						
44. Leeks						
45. Sweetcorn						
46. Rumerbeans						
47. Lettuce, watercress						
48. Onions						
49. Carrots						
50. Tomatoes						
51. Pepper						
52. Cucomber						
53. Other vegetables						
54. Beans, peas						
55. Chickpeas						
56. Broadbeans						
57. Lentils						

<sup>1</sup> Fill in with \*, in case the food/dish is not known

## Past food habits

<b>VII. FRUITS</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
58. Apple, pear						
59. Orange, tangerine						
60. Banana						
61. Kiwi						
62. Strawberries and cherries						
63. Peach, apricot, plum						
64. Water and honey melon						
65. Grapes						
66. Sharon fruit						
67. Mango, papaya, pineapple						
68. Other fresh fruits						
69. Dried fruits: prune						
70. Nuts						
71. Chestnuts						
<b>VIII. DRINKS</b>	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
72. White wine						
73. Red wine						
74. Wine "americano", "morangueiro"						
75. Cider						
76. Beer						
77. "Bagaço", "aguardente"						
78. Whisky, vodka						
79. "Vinho do Porto" or Madeira						
80. Carbonated soft drinks (coke, sprite,...)						
81. Natural juices						
82. Carbonated mineral water						
83. Coffee						
84. Tea						

<sup>1</sup> Fill in with \*, in case the food/dish is not known

## Past food habits

DISHES	1 or + per day	4 to 6 per week	1 to 3 per week	1 to 3 per month	Never or < 1 mon <sup>1</sup>	Seaso nal
1. Caldo verde						
2. Sopa de feijão/ grão com hortaliça						
3. Sopa de legumes (outros)						
4. Canja/ sopa de cozido						
5. Outras sopas						
6. Feijoada de carne						
7. Cozido à Portuguesa						
8. Tripas/ Dobrada						
9. Rojões						
10. Cabrito/ borrego assado						
11. Leitão assado						
12. Carne assada						
13. Carne de porco à Alentejana						
14. Arroz de carne						
15. Estufados/ Jardineiras						
16. Rancho						
17. Alheiras (com batata cozida e grelos)						
18. Rissóis (de carne, peixe, etc)						
19. Sardinhas assadas						
20. Bacalhau cozido						
21. Bolinhos de bacalhau						
22. Outros pratos de bacalhau						
23. Caldeirada de peixe						
24. Açordas e migas						
25. Arroz de marisco						
26. Arroz de polvo						
27. Empadões (com puré)						
28. Empadas e folhados de carne/ peixe						
29. Omeletes e ovos mexidos						
30. Hamburguer						
31. Pizza						
32. Leite creme						
33. Aletria/ arroz doce/ tapioca						
34. Pudins caseiros						
35. Mousses caseiras						
36. Bolos caseiros						
37. Pão de ló						
38. Algum outro prato que queira referir: _____						

<sup>1</sup> Fill in with \*, in case the food/dish is not known

## Food habits - Today

1 <sup>st</sup> Meal	Name	Time	Place	With whom
----------------------	------	------	-------	-----------

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2 <sup>nd</sup> Meal	Name	Time	Place	With whom
----------------------	------	------	-------	-----------

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3 <sup>rd</sup> Meal	Name	Time	Place	With whom
----------------------	------	------	-------	-----------

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4 <sup>th</sup> Meal	Name	Time	Place	With whom
----------------------	------	------	-------	-----------

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5 <sup>th</sup> Meal	Name	Time	Place	With whom
----------------------	------	------	-------	-----------

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6 <sup>th</sup> Meal	Name	Time	Place	With whom
----------------------	------	------	-------	-----------

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7 <sup>th</sup> Meal	Name	Time	Place	With whom
----------------------	------	------	-------	-----------

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Food habits - Before**

1<sup>st</sup> Meal Name Time Place With whom

Description:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2<sup>nd</sup> Meal Name Time Place With whom

Description:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3<sup>rd</sup> Meal Name Time Place With whom

Description:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4<sup>th</sup> Meal Name Time Place With whom

Description:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5<sup>th</sup> Meal Name Time Place With whom

Description:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6<sup>th</sup> Meal Name Time Place With whom

Description:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7<sup>th</sup> Meal Name Time Place With whom

Description:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# Appendix 3

Glossary of Portuguese Dishes



## GLOSSARY OF PORTUGUESE DISHES

### SOUPS:

“**Caldo verde**” - made with potatoes and a ripened dark green cabbage.

“**Canja**” – made with the water in which chicken was boiled, with rice or spaghetti. Sometimes, shredded chicken is added.

“**De cozido**” soup - made with the water that was used to boil different kinds of meat and vegetables to prepare the dish “Cozido à Portuguesa”.

Most soups are made with olive oil, water, and are potato based.

### MAIN DISHES:

“**Açordas**” and “**migas**” - bread-based dishes, usually with pork.

“**Alheiras**” – a pork derivative, prepared with pork and chicken meat and fat, bread and spices.

“**Arroz de carne**” – meat rice (it may include carrots and peas).

“**Arroz de marisco**” - seafood rice.

“**Arroz de polvo**” – octopus rice.

“**Bacalhau cozido**” - boiled codfish.

“**Bolinhos de bacalhau**” - fried codfish cakes.

“**Cabrito/Borrego assado**” - roasted lamb.

“**Caldeirada de peixe**” – stewed fish (various kinds) with potatoes, tomatoes, carrots, pepper and herbs.

“**Carne assada**” - roasted meat (pork, beef).

“**Carne de porco à Alentejana**” - pieces of fried pork with diced fried potatoes and clams.

“**Cozido à Portuguesa**” – Boiled meat (beef, chicken, pork) and “chouriço” with cabbage, carrots and potatoes.

“**Empadas**” and “**folhados**” - meat or fish pies.

“**Empadões de puré**” - mashed potatoes with fish or meat.

“**Estufados**” – stews.

“**Feijoada**” – stewed beans with pork meat.

“**Jardineira**” – stewed meat with peas, diced potatoes, carrots.

“**Leitão assado**” - roasted suckling pig.

“**Outros pratos de bacalhau**” – other codfish dishes (besides boiled and codfish cakes).

“**Ovos mexidos**” – scrambled eggs.

“**Rancho**” - stewed chickpeas with pasta and pork meat.

“**Rissóis**” - meat, fish or seafood fried cakes.

“**Rojões**” - pieces of fried pork, served with diced fried potatoes.

“**Sardinha assada**” - grilled sardine.

“**Tripas**” and “**Dobrada**” - stewed tripe with pork meat and beans.

#### **DESSERTS:**

“**Bolos caseiros**” - homemade cakes .

“**Leite creme**”, **arroz doce**” and “**aletria**” - milk-based desserts, with boiled flour, rice and pasta, respectively.

“**Pão de ló**” - simple cake.

“**Pudins caseiros**” - homemade puddings.