

# FOOD PURCHASING OF DIFFERENT HOUSEHOLD TYPES IN TIMES OF RESTRICTED BUDGET

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## **Abstract**

The second German National Nutrition Survey (NVS II) provides current data for the German population. From this study, data of food purchasing in times of restricted budget will be used for a secondary analysis. In a second step qualitative interviews will be conducted in which in-depth information will be gained on consumers' motives, attitudes, fears and response strategies (to a decreased household budget) regarding food purchases.

## **1. Problem statement**

Food purchases are determined by household income and household type in two ways - quantitative and qualitative. The Engel demand curve shows the linkage between the household food expenditure and household income. This general relationship is embodied in Engel's law, which states that the lower the household income the greater the percentage of that income spent for food. It is well known that this traditional theory can not represent real-world situations. But empirical data confirm the Engel's law. About half of the expenditures of private households are spent for livelihood like food (14%), rent (32%) and clothes (5%). The sample survey of income and expenditure shows that household income, professional classification, household size, and household type have a significant influence on the amount of food expenditures. Households with relatively low income, e.g. solitarily women or single parents, spend a high amount of the distributable income for consumption goods<sup>[1]</sup>. The influence of economic factors on food consumption patterns is stronger in low-income groups and weaker in high-income groups<sup>[2]</sup>. Thus, certain household types seem to be very vulnerable to a decreasing budget. Recent studies have shown that low household income is related to unhealthier food choice<sup>[3,4]</sup>. It can be expected that households with low income restrict their food expenditures which may influence the variety of food purchases and, consequently, the nutrition behaviour. Additionally, food prices are constantly exposed to fluctuations (in- and decreases)<sup>[5]</sup> and different external factors can influence the distributable budget, e.g. increasing prices for energy and other essential goods or the current financial crisis (which may lead to unemployment). The gradient in nutrition and health behaviour exposes the need of health promotion for those groups (e.g. low income group).

## **2. Objective and methodology**

In this study a mixed methods approach is applied, combining an analysis of quantitative data and a primary survey which includes qualitative interviews. The aim of the first part of the study is to classify different household types by income, household size and food expenditure,

to describe their differences regarding food expenditure and to analyse their reaction to a decreasing household budget. Therefore, data of the second German National Nutrition Survey (NVS II)<sup>1</sup> were analysed. To create a comprehensive overview of different household types and their food expenditures, households has been subsumed into homogenous groups. Therefore, the applied statistical technique is cluster analysis. The second part will be the implementation of qualitative interviews. Thereby, in-depth information on consumers' behaviour considering motives and attitudes will be generated using semi-structured face-to-face interviews. By data triangulation, widespread conclusions can be drawn on purchase patterns, comprising food expenditures according to socio-economic and -demographic data. It will further reveal possible reactions to decreases in the household budget. This abstract only includes the first results of the quantitative part of the study.

### **3. Results (current state)**

Six different household types can be identified as clusters. The characteristics of each cluster are shown in Tab. 1. The household types differ in their income and food expenditures (cf. Tab. 1). Modifications in food consumption differ between the household-clusters and between different food groups. 15% would abstain from mineral water or drink less; a descriptive comparison indicates no differences between the clusters. 38% would abstain from coffee or drink less; comparison shows differences of >10% between the clusters. Low-income clusters would choose more often low-priced alternatives for meat, one of them wouldn't for milk products.

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<sup>1</sup> A cross sectional study with participants aged 14-80 years done by the Federal Research Institute for Nutrition and Food (Max Rubner-Institute). Data have been collected between November 2005 and November 2006. For more information about the methodology of NVS II cf. [6].

**Tab 1: Cluster and their characteristics**

characteristics		number of persons living in the hh			hh-net income (Euro/month)	expenditures for food and beverages (at home) (Euro/month)	expenditures for food and beverages (out-of-home) (Euro/month)	professional classification of main earner	marital status
cluster	n	mean	min	max	median	median	median	mentions <sup>*</sup>	mentions <sup>*</sup>
solitarily persons	1986	1,39	1	4	1250-1500	150-200	<50	employee, retiree, unemployed	unmarried, married, divorced, widowed**
2-persons-hh with low income, high expenditures	1617	1,88	1	3	1750-2000	400-500	<50	employee, retiree, unemployed	married, widowed, unmarried
bad-off, bigger family	1612	3,92	3	11	2250-2500	400-500	50-100	employee, labourer, self-employed	married, unmarried, divorced
averaged 2-persons-hh	694	1,95	1	3	2750-3000	250-300	100-150	employee, civil servant, labourer	married, unmarried, divorced
well-off, nuclear family	1307	3,14	1	6	3750-4000	500-600	100-150	employee, civil servant, self-employed	married, unmarried, divorced
wealthy people	274	2,34	1	6	3750-4000	300-350	350-400	employee, self-employed, civil servant	married, unmarried, divorced
total sample	7490	2,43	1	11	2000-2250	350-400	50-100	employee, labourer, retiree	married, unmarried, divorced

<sup>\*</sup> three most mentioned categories are listed (descending order), <sup>\*\*</sup> identical frequency (difference < 0,1%)

#### 4. Discussion

Food expenditures vary between the classified household types. The comparison of clusters shows differences among the types regarding changes in food purchasing, abandonment of certain foods and choice of low-priced alternatives for certain foods when budget is restricted. However, findings can not be generalized; the observed trends could be discussed during the seminar. Consequently, qualitative interviews will be carried out to gain in-depth information on consumers' motives, attitudes, fears and response strategies (to a decreased household budget). Findings, then, will enable the development of precise intervention-activities and target-group-specific recommendations with regard to buying healthy food. Furthermore, risk groups which are forced to change their food expenditure structure due to different causes will be identified. Based on quantitative and qualitative findings target group specific recommendations will be developed for consumers, policy makers, nutritionists and consultants.

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