

# Czech National Food Consumption Survey: Method and Application of Results

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**Dofkova M., Ruprich J., Jakubikova M., Rehurkova I., Blahova J.**  
National Institute of Public Health, Palackeho 3a, 612 42 Brno, Czech Republic, dofkova@chpr.szu.cz

## Introduction

Food consumption surveys provide important information about consumption patterns and trends in the population. In the Czech Republic series of three national food consumption surveys were realized through household budget survey (HBS) method in years 1990 – 2000 (1). Disadvantage of this access was a possibility to obtain data only for “average person” in the population. That is why an individual dietary survey on the national level (SISP) was organized for the first time in 2003 -2004(2).

## Method

SISP was conducted by the method of **repeated 24-hour recall** which involved age and gender representative sample of the population both from urban and rural areas. Methodology of the study was based on results of the EFCOSUM project (3, 4). **Total number of participants was 2590** men and women in the age range from 4 to 90 years. Sampling and interviews with respondents were carried out in the cooperation with GfK Company. Assistance of research agency was evaluated as the best solution considering the extent of study. Data collection was proportionally distributed during the whole year and covered all days in the week.

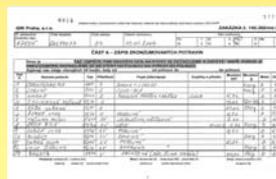


Fig 1: Paper questionnaire used in SISP



Fig 2: Example from the picture book

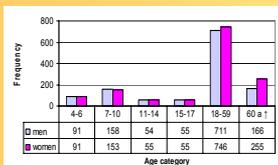


Fig 3: Number of subjects in the study



Fig 4: Distribution of participants in regions

Two non-consecutive 24-h recalls were realized with every participant. To estimate portion sizes a picture book and household measures were used. Recalls were conducted as **face-to-face interview** by trained interviewers and took place in participants households. Repeated interview proceeded within a period of 1 to 6 months after the first recall and addressed another day of the week. Information was registered to paper questionnaires and subsequently transferred to electronic form. Data handling and analyzing were done in Paradox database software. Intakes of **515 individual foodstuffs were assessed**.

## Results

Primary application of results from SISP is in the health risk assessment but they are also used in many projects focused on nutrition and food safety.



### Dietary Exposure Monitoring Programme

- has been realizing in the CR since 1994 as Total Diet Study. Food consumption data from SISP are used for estimation of dietary exposure to contaminants and some micronutrients (about 150 individual chemical substances).  
<http://www.szu.cz/publikace/monitoring-zdravi-a-zivotniho-prostredi>

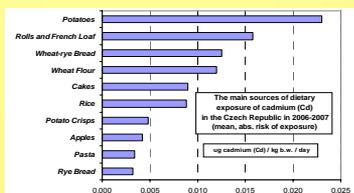


Fig 5: Main dietary sources of cadmium in the CR



### European Food Safety Authority

- SISP results form a basis for the Czech part of the Concise database where food consumption data from different EU countries are compiled.  
[http://www.efsa.europa.eu/EFSA/ScientificPanels/DATEX/efsa\\_local\\_e-1178620753812\\_ConciseEuropeanConsumptionDatabase.htm](http://www.efsa.europa.eu/EFSA/ScientificPanels/DATEX/efsa_local_e-1178620753812_ConciseEuropeanConsumptionDatabase.htm)

### Preliminary assessment of nutritional status and eating habits

- data from SISP have been used for preliminary evaluation of nutritional status in specific age groups. Results have been compared with available recommendations.

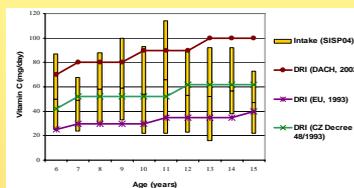


Fig 6: Vitamin C intake for children 6-15 years in the CR



### European Food Consumption Validation Project

- many databases set up originally for SISP were utilized in preparing of Czech national version of Epic-soft in the EFCOVAL project.  
<http://www.efcoval.eu>



### Rapid Alert System for Food and Feed

- SISP food consumption data are applied in the health risk assessment. In 2008 there were 56 notifications sent to the RASFF system from the Czech Republic.

[http://ec.europa.eu/food/food/rapidalert/index\\_en.htm](http://ec.europa.eu/food/food/rapidalert/index_en.htm)  
<http://www.szpi.gov.cz>

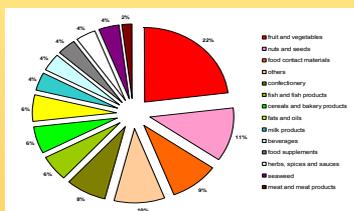


Fig 7: Proportion of food groups in notifications sent to RASFF in 2008



### SAFE FOODS, EXPOCHI

- are international projects where data from SISP have been used for probabilistic evaluation of exposure (MCRA) to selected contaminants. EXPOCHI project is aimed at children and SAFE FOODS at whole population (5).  
<http://www.safefoods.nl>

## Conclusions

Food consumption data originated from SISP are of wide appliance in the field of food safety and nutrition. Therefore repeating of such a study in the near future will be very worthwhile. The best solution appears to be an introduction of ongoing system for collecting food intake data.

### References

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