

EPIC-soft current status and perspectives

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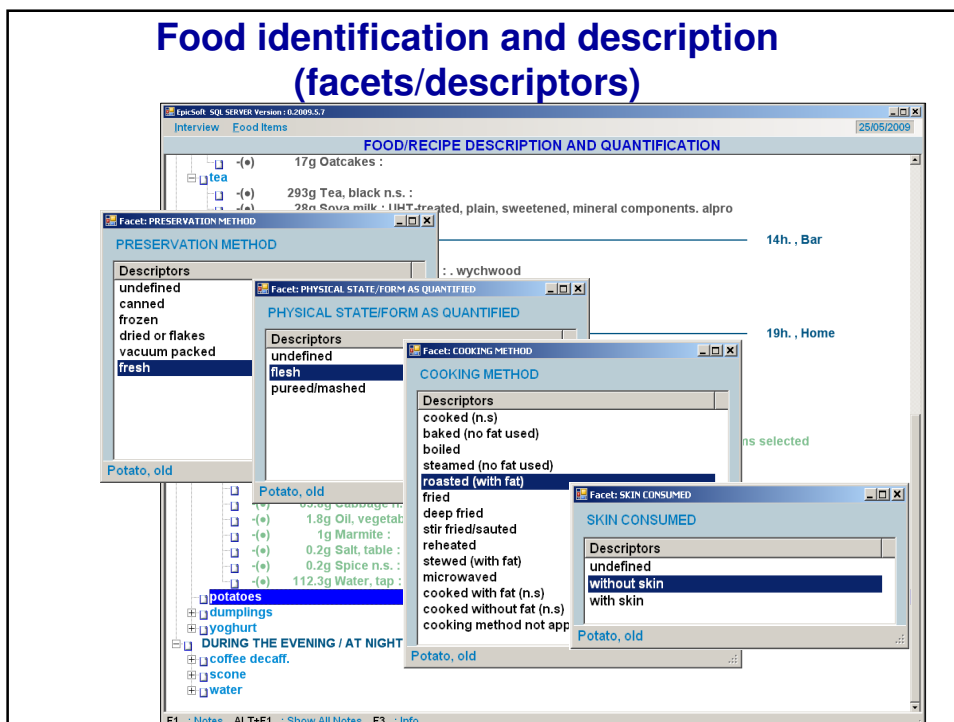
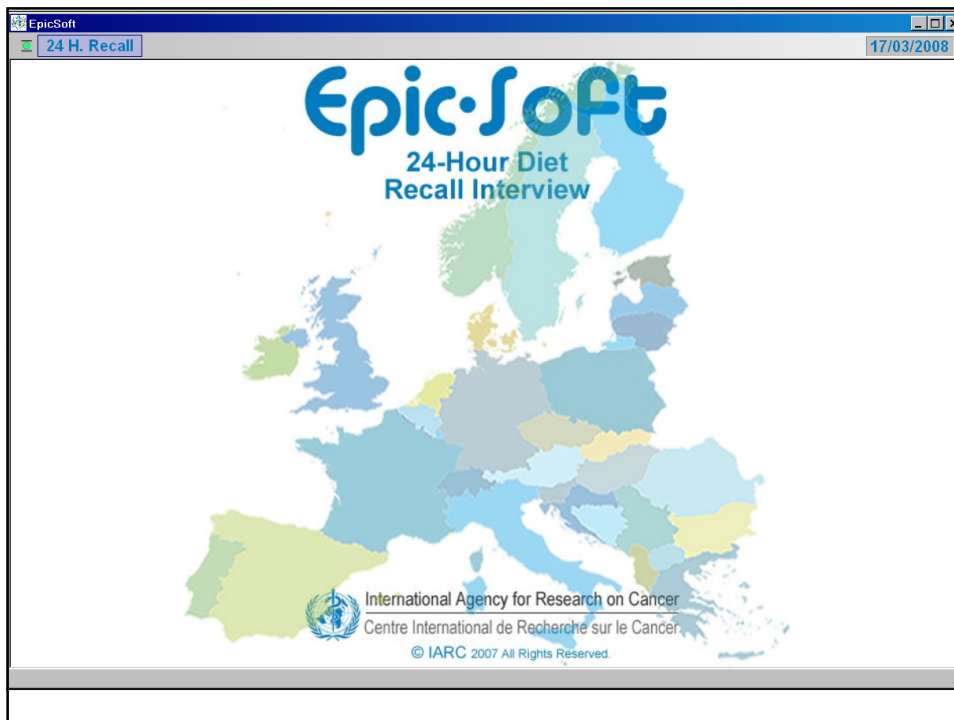


International Agency for Research on Cancer
Centre International de Recherche sur le Cancer



Longstanding history on the EPIC-soft program

- 1992 - 1994: **Development of the EPIC-soft 24-HDR program + 10 country versions (EPIC);**
- 1995 - 2000: **Data collection of ~37,000 24-HDRs in EPIC** (ref. calibration measurements);
- 2000 - 2002: **EPIC-soft recommended for pan-European monitoring surveys (EFCOSUM);**
- 2000 - 2002: Publication of a **PHN special issue on dietary consumption** (15 papers);
- 2002 - 2005: Development of an **ad hoc standardised nutrient DBase (ENDB);**
- 2002 - 2009: **EPIC-soft used in regional and national monitoring surveys (4 EU countries);**
- 2002 - 2009: Publication of a **series of methodological papers on EPIC-soft and its validity;**
- 2006 - 2009: Publication of an **EJCN special issue on nutrient consumption** (15 papers);
- 2006 - 2009: **Reprogramming, adaptation and validation of EPIC-soft for future pan-European monitoring surveys (EFCOVAL);**
- 2006 -2009: **Use of EPIC-soft together with a propensity questionnaire (IDAMES).**



Completed interview

The screenshot shows the Epic-Soft SQR SERVER interface with a completed interview. The main window displays a list of food items categorized by time of day. The 'DURING THE EVENING / AT NIGHT' category is highlighted in blue. The items listed include various beverages, snacks, and a main course (vegetarian stew/casserole) with detailed component breakdowns. The interface includes a tree view on the left and a list view on the right, with a status bar at the bottom showing 'F1 : Notes ALT-F1 : Show All Notes F3 : Info'.

Potential of the EPIC-soft 24-HDR method?

- **Standardised procedures to describe, quantify, probe and calculate** food and beverage intakes (incl. food supplements)
- **13 translated versions** with the same interface adapted to each country. Systematic quality controls before, during and after data collection
- **Standardized procedures to classify, store, retrieve and export data** (for different purposes and objectives)
- **Flexible system** to upgrade individual databases and prepare new country- or study-specific EPIC-Soft versions
- **Validated measurements** at population level (EPIC), ongoing in EFCOVAL
- **Used/tested in different contexts and populations**

Nutritional studies using EPIC-SOFT within or outside EPIC

Country (dates)	Study names (institute involved)	Type of study	Subjects	Interv. method	Nr. 24-HR	PR ^(*)
EPIC (1995-2000)	EPIC (23 centres)	Calibration	37,000 adults	Face (Not Norway)	1	57% to 92% (1/2 centres >80%)
Spain (2001-2002)	Spanish bladder and cancer study	Validation	217, adults	Face	7-9	72% (60%)
Norway (2002-2003)	Norwegian Women and Cancer study	Validation	286, women	Tel.	4	99% (57%)
Germany (2002-2003)	Bavarian food consumption survey II	Regional survey	1050, 14-80 y	Tel.	3	85% (71%) (At least 2 x 24-HRs)
Spain (2003-2004)	Basque country survey among children and adolescents	Regional survey	1000, children & adolescents	Face	2	99% (77%) (1 st 24-HR mand.)
NL (2003)	Pilot study of the Dutch national consumption survey	Pilot study	750, young adults	Tel.	2	95% (42%)
Belgium ^(**) (2004-2005)	Belgian Food consumption survey	National survey	3200, 15 and older	Face	2	79% (42%)
NL ^(**) (2005-2006)	The Dutch Consumption Survey in Children	National survey	1280, 2-6 y	Pre-struct. diary (EPIC-Soft for data entry)	2	97% (80%)
Germany ^(**) (2005-2009)	German Nation-wide Food Consumption Survey (NVS II)	National survey	20,000, 14-80y	Tel.	2	Ongoing
EFCOVAL (2006-2009)	European Food consumption validation (5 countries)	Validation	600, adults	Face/Tel.	2	Ongoing
IDAMES (2006-2009)	Innovative Dietary Assessment Methods (5 countries)	Feasibility	480, adults	Tel.	3	Ongoing

(*) : Participation rates to the EPIC-SOFT 24-HDR interview (s) (red figures) and overall participation rates (blue figures)

(**) : Ongoing/new planned studies

Main outcome from an evaluation of different studies using EPIC-soft

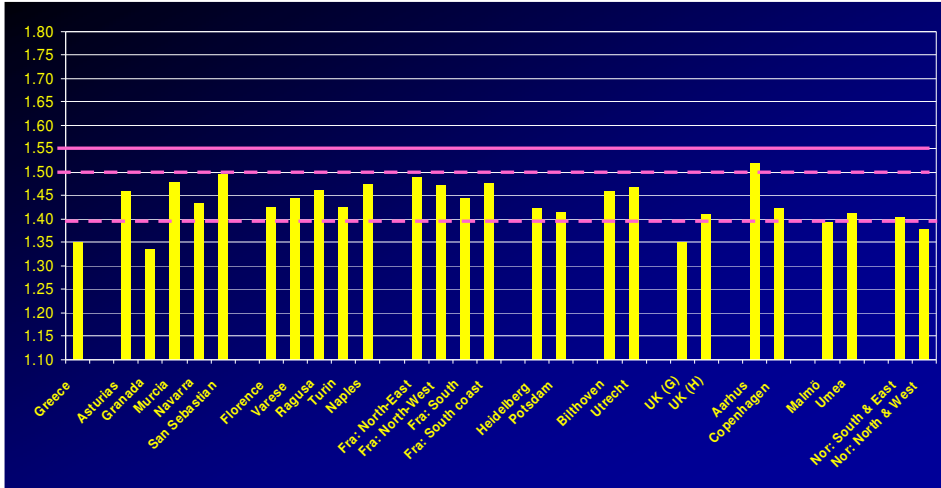
Intermediate conclusion

- EPIC-soft has already successfully been used in different study settings & study populations (in most cases 1 to 2 none consecutive measurements)
- Mean interview time between 20–34 min.
- Data were used for nutritional & exposure assessments
- Most of the respondents felt capable to answer 24-HDR with EPIC-soft via face-to-face and telephone administrations*

Paper in process (Huybrechts et al.): *Inventory of experiences from national monitoring surveys using EPIC-soft as a basis for recommendations for future pan-European surveys [EFCOVAL project]*

* Paper in process (Huybrechts et al.): *The respondent's perspective about 24-HDR administered with the EPIC-soft program: results from an evaluation questionnaire [IDAMES project]*

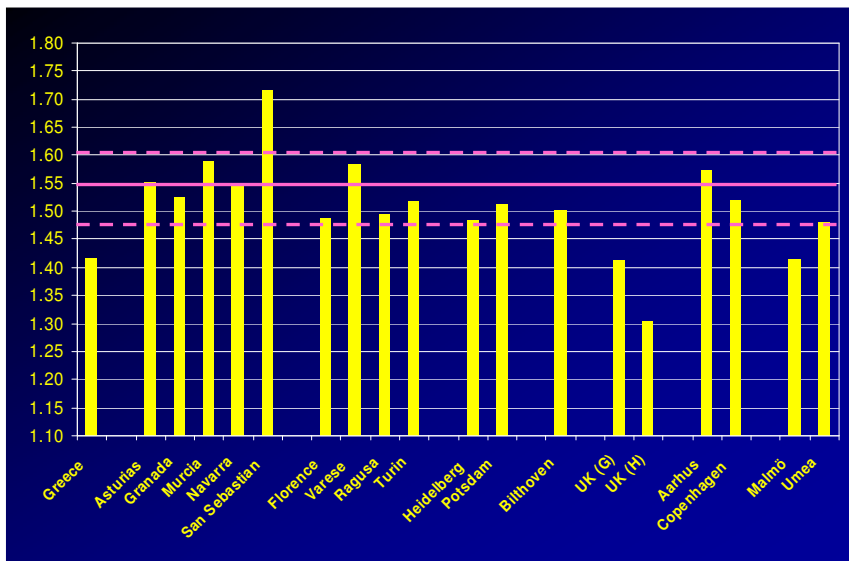
Adjusted centre mean EI/BMR in the 24-HDRs, after exclusion of high over- and under-reporters according to Goldberg: WOMEN



* Centre mean values adjusted for age, height, BMI, day of recall and physical activity

Recalculated from Ferrari et al., 2002

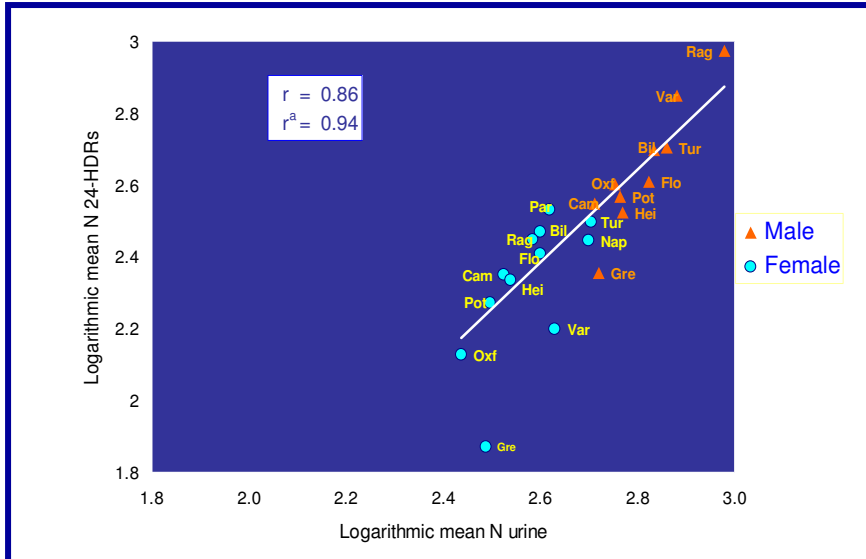
Adjusted centre mean EI/BMR in the 24-HDRs, after exclusion of high over- and under-reporters according to Goldberg: MEN



* Centre mean values adjusted for age, height, BMI, day of recall and physical activity

Recalculated from Ferrari et al., 2002

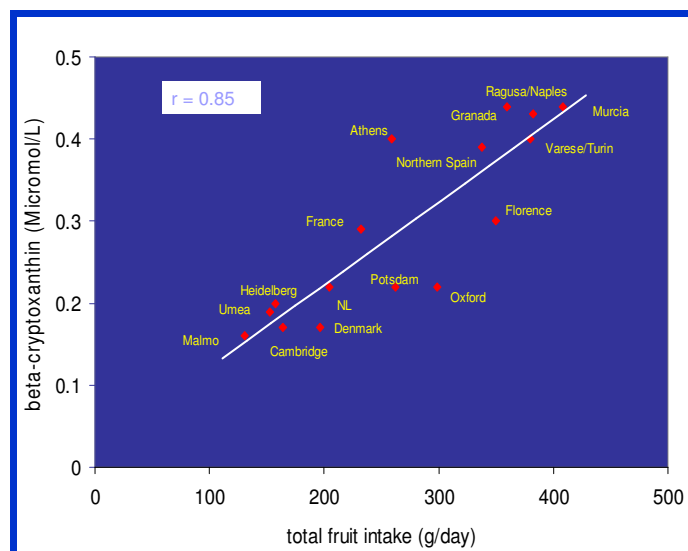
Ecological correlation between centre mean nitrogen dietary and urinary levels



(a) : After exclusion of Gre and Var (women only)

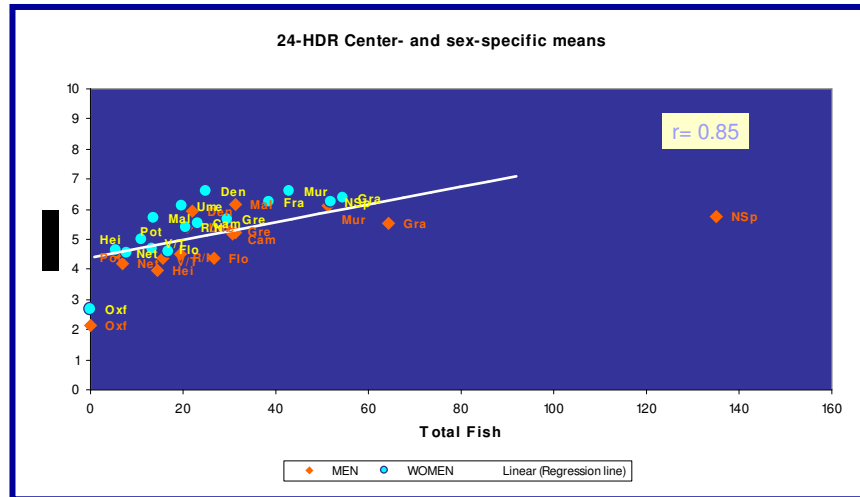
Slimani et al., CEBP, 2003

Ecological relationship between plasma biomarkers (beta-cryptoxanthin) and total fruit



Ferrari et al., Am J Epi, 2005

Ecological relationship between plasma biomarkers (DHA - 22: 6n-3) and fish



Saadatian-Elahi et al., Am. J. Clin., 2009

EPIC-soft Web-Based Methodological platform (EMP) – General Design-

IARC INFRASTRUCTURE FOR DISSEMINATION

TECHNICAL AND APPLICATIVE DESIGN

Profile, Users & Privileges

Maintenance & Setting (EPIC-soft tables, Maintenance forms (FUF, RUF,...), Versioning. Optional: Nutrient management)

EPIC-soft Application (EPIC-soft program)

Interview Management (Management of data sets & related Notes, Re-compute program, Data export)

Communication (EMP mailing system)

Online Help and Guidelines

Future plans

- Implement and test the EPIC-soft Methodological platform [ongoing];
 - Ensure the long-term sustainability of the platform and establish formal collaborations at the international level for future studies (e.g. EFSA, WHO-headquarters, EuroFIR) [ongoing];
 - Use EPIC-soft as a 24-HDR main method or as data entry method (food records) in future pan-European monitoring surveys [discussion still ongoing];
 - Upgrade existing and develop new EPIC-soft versions and related databases;
 - Further develop on EPIC-soft and new related tools:
 - *Develop a data entry system for food diaries [adults vs. children];*
 - *Develop an audio (telephone) -web-based EPIC-soft version;*
 - *Link the EPIC-soft platform with the European nutrient database platform (EuroFIR).*
- ➡ *New EPIC-soft release at the end of EFCOVAL, with a series of new specifications [end 2009]*
- ➡ *Fully operational EPIC-soft Methodological Platform [EMP] [end 2010]*

Acknowledgements

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Announcement "EFCOVAL closing conference"

- Date: 9-10 September 2009, Utrecht, The Netherlands
 - *"Pan-European Food Consumption Surveys - for Standardized and Comparable Transnational Data Collection"* workshop
 - Open conference
- More Information & Registration www.efcoval.eu
- Contact: Dr. Evelien J. de Boer (Coordinator) Evelien.de.Boer@rivm.nl

