

## Preface

The European Investigation into Nutrition and Cancer (EPIC) is the largest ongoing multi-centre prospective study in Europe. It includes a wide network of scientists with various backgrounds and expertise, reflecting the size and the multidisciplinary aspects of the project. Different study groups try to make the best scientific use of the data and blood samples collected from the half a million subjects involved in EPIC. These study groups examine amongst others the association between diet, nutritional status, various lifestyle and environmental factors and the incidence of different forms of cancer and other chronic diseases. One of these working groups conducts descriptive studies on different levels of food consumption and dietary patterns existing across the European cohorts participating in EPIC. The present supplement is a product of this study group.

The supplement may read on the one hand as a scientific report on a large study, but on the other hand the papers also can be read as independent studies. The first two papers deal with design, subjects and methodological issues. These are followed by a paper on anthropometrics and one on physical activity. The major part of the report (eight papers) describes selected food (groups) consumed by the cohorts and the meaning of these intakes for a healthy dietary pattern. Subsequently there is a paper on the diversity of diets in Europe and the final paper is a critical report on misreporting in the EPIC 24-hour diet recalls (24-HDRs). Since the papers share the same original dataset, they all have some features in common, which we discuss below. This is followed by a description of the processes involved in the compilation and editing of this supplement, and some concluding remarks.

### Common features in the papers

#### *Subjects and dietary methods*

In contrast to the papers on anthropometrics and physical activity, the papers on food consumption and dietary patterns observed among the EPIC centres do not deal with all of the EPIC participants, but with a large sub-sample of the EPIC cohort involved in the nested calibration sub-study (~36 900 subjects). A single 24-hour diet recall was collected from each participant in the calibration study, using a standardised, computerised face-to-face interview software (EPIC-SOFT). All of the papers in this supplement that describe specific food group consumption are based on the same 24-HDR dataset and, therefore, share the same standardised methodology.

#### *Common statistical analyses and presentation of the results*

The mean food intakes are presented in ‘*common tables*’ separately for men and women and for the same defined 27 EPIC centres, ordered according to a south–north geographical gradient. Food consumption data are presented according to the main group and sub-groups of the EPIC-SOFT food classification. However, in most of the papers (e.g. on meat, fish, added fat and oils, dairy products, etc.) specific food items are also re-classified according to criteria determined by potential interest for future studies on food–disease risk associations.

The same format for tables and statistics is used to present food consumption data across dietary papers. These rules apply, however, only to the so-called ‘*common tables*’ where the basic information on food (sub-) group consumption is reported to enable the readers to retrieve and compare the EPIC centre mean intakes across papers or with other data sources. In addition to these common statistical analyses, authors of each paper were invited to conduct statistical analyses guided specifically by the characteristics of the food group under investigation.

It was decided to present the crude and adjusted means (and standard error) as the common statistics to summarise dietary consumption. The adjusted means were adjusted for unbalanced distribution of 24-HDRs across days of the week and seasons, which occurred due to sub-study. Age was also taken into account so that the consumption data would be comparable across centres, bearing in mind that the calibration sample is not a strictly random sample, but a stratified sample according to the age distribution of the cancer cases expected during a 10-year follow-up. The analysis of covariance (ANACOVA) using a weighed regression model was used to estimate adjusted means. In this model, the dietary variable was used as dependent variable whereas centres and age were used as independent covariates, with centre-specific weights for days of the week and seasons calculated as the ratio between the ideal expected frequency and that actually observed. The effect of total energy intakes on mean estimates was tested systematically by adding it to the previous model and is discussed in the papers. The effects of other individual non-dietary variables (anthropometry, lifestyle factors) were also tested but on an individual basis.

### Procedure in preparing the supplement

This supplement is the end product of about three years of

collaborative work involving dozens of researchers. After identifying the papers to be submitted to the supplement, *writing groups* were set up involving three to seven people, each directly in charge of the statistical analyses and preparation of a given manuscript. In order to facilitate communication between the writing groups, a restricted network, involving only the first authors and the co-ordinator of the project, was in direct contact by email or regular telephone conferences to discuss common methodological and practical aspects of the preparation of the papers. The decisions taken were then circulated for information and comment to the whole working group.

Before submitting the papers the draft papers were circulated to all EPIC co-authors for comment. For each paper, one or two colleagues were identified among the co-authors and asked to act as *internal* EPIC referees and to circulate a critical and detailed evaluation of the paper. After having taken into account all comments, the paper was updated and submitted for publication to the two guest editors of the supplement.

### **Review and editing of the papers**

The work of editing the papers was shared between the two guest editors, with one of the editors acting as first editor for a group of papers and second editor for the remainder. On receipt of the papers the editors read the

paper and allocated it to reviewers who were asked to treat it as they would a normal paper. This created some difficulties because – as stated before – the papers in the supplement in fact form one large paper and needed to be reviewed as a whole. The order of the papers in the supplement thus follows the conventional order of Introduction, Methods, Results and Discussion.

An editorial report combining the comments from the reviewers and the editor was prepared and sent to the corresponding author. The replies from the authors and their revised papers were reviewed at an editorial meeting in Wageningen, and, following this acceptance, letters or requests for textual modifications were sent to the authors. Finally the papers were sent to a technical editor, Linda Northrup, for final preparation. The editorial process occupied about nine months in all.

Both editors feel that the papers provide an important introduction to the findings of the EPIC study, an acronym that is highly appropriate to the project as a whole: ‘a study that is grand in scale or character’ (Oxford English Dictionary).

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