



INTERNATIONAL AGENCY
FOR RESEARCH ON CANCER



EUROPEAN COMMISSION
HEALTH MONITORING PROGRAMME

CaMon: Comprehensive Cancer Monitoring in Europe

A project of
the International Agency for Research on Cancer (IARC), Lyon, France
in collaboration with
the Istituto Superiore di Sanità (ISS), Milan, Italy

Interim report, covering the period 1 December 2001 – 30 November 2002

***The Comprehensive Cancer Monitoring Programme in Europe (CaMon) project is funded
by the European Commission, Agreement No. SI2.327599 (2001CVG3 - 512).***

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ABBREVIATIONS USED

EC	European Commission
ENCR	European Network of Cancer Registries
EU	European Union
EUCAN	European Union Cancer Database
EUPHIN	EU Public Health Information Network
EUROCIM	European Cancer Incidence and Mortality Database
EUROCARE	Study on Survival and Quality of Care of Cancer Patients in Europe
EUROCHIP	European Cancer Health Indicators Project
EUROSTAT	Statistical Office of the European Communities
IARC	International Agency for Research on Cancer
ISS	Istituto Superiore di Sanità
USA	United States of America
WHO	World Health Organization

1. INTRODUCTION

CaMon (Comprehensive Cancer Monitoring in Europe) is a new project supported by the Health Monitoring Programme (Health and Consumer Protection Directorate-General) of the European Commission. CaMon is funded by the Health Monitoring Program as part of the European Union action in public health. In accordance with Article 4(1) of the contract an interim report has been prepared, detailing the main activities that took place during the first year of the project.

1.1 Aims of project

1.1.1. to develop a cancer surveillance system for cancer occurrence and outcome (incidence, mortality, prevalence and survival), permitting situation analysis and monitoring of cancer burden in the Member States of the European Union and its applicant states;

1.1.2. to disseminate such information within the European Union and world-wide, and to make it available for incorporation into the health monitoring system of the European Commission.

1.2 Operational responsibilities

1.2.1 The compilation and maintenance of an updateable database of indicators of cancer burden and outcome for EU countries;

1.2.2 The study of time trends and the provision of projections of cancer incidence and mortality for the EU and its Member States;

1.2.3 The organisation of international workshops reviewing ii) available methods for making time trends and projections/predictions of future cancer burden, following which projections of future cancer incidence and mortality will be prepared for each of the Member States for 2010 and 2020; ii) the role in prevalence as a cancer indicator in different health settings.

1.2.4. Definitions and methodological aspects of prevalence in public health monitoring.

2. ACTIVITIES 1 DECEMBER 2001- 30 NOVEMBER 2002

2.1. Provision and dissemination of information on cancer

2.1.1. EUCAN (1997 estimates)

The EUCAN database and software package presents graphical and tabular information on cancer incidence, mortality, prevalence and survival in the 15 Member States. The EUCAN database is updated annually to incorporate the most up-to-date incidence and mortality data available. In February 2002, the EUCAN dataset was updated with estimates for 1997, based on the most recent cancer registry data in Europe. An online version of EUCAN is available on the CaMon website - www-dep.iarc.fr/hmp/camon.htm (Annex 1).

2.1.2. A systematic analysis of time trends of cancer incidence and mortality in Europe (Phase 1)

A major focus of the CaMon project is a comprehensive and systematic analysis of time trends of incidence and mortality of 23 cancers in Europe. The project has several phases. The slides presented in Annex 2 give an overview of the project.

The first phase was to identify the optimum strategy for a systematic analysis of time trends in cancer. This component commenced 18-19 November 2002 with a workshop of international experts at IARC, Lyon. Invited advisors were Susan Devesa, from the National Cancer Institute, Bethesda, USA, who also acted as Chair; Tadek Dyba and Timo Hakulinen of the Finnish Cancer Registry, Helsinki, Finland; Bjørn Møller of the Krefregisteret, Oslo, Norway; Arduino Verdecchia of the Istituto Superiore di Sanita, Rome, Italy. Observers included Anja Loos (Germany), Peter McCarron (Northern Ireland), and Risto Sankila (Finland), and a number of IARC staff also contributed (Freddie Bray, Eva Démaret, Jaques Ferlay, Paola Pisani, Max Parkin, Jerzy Tyczynski). This advisory group reviewed the methodological aspects of systematic time trend analyses, discussing issues related to the availability, quality and comparability of cancer incidence and mortality data, the rationale of time trends and predictions of cancer, graphical displays, and the use of statistical models for age-period-cohort analyses and the short-term prediction of future cancer burden (see Agenda: Annex 3 and Recommendations Annex 6). See 3.1.1 for the scheduled phases of the time trends project in the second year of the CaMon project.

Experts in the field for each cancer site have been identified, and invited to collaborate in the project as interpreters of the trend analyses and predictions, and to act as lead authors of a series of cancer-specific scientific papers. A letter to the stakeholders, the European cancer registries (the ENCR Members), has been sent, outlining the project, asking them to sign up to the activities and become co-authors of the site-specific reports.

2.1.3. Analyses of time trends in site-specific cancer incidence and mortality in European populations

A detailed examination of recent and future trends in lung cancer mortality (in relation to current smoking patterns) in the 15 Member States has been undertaken and a paper entitled "Going up or coming down? The changing phases of the lung cancer epidemic in the 15 European Union countries 1967-1999" submitted to *Lancet Oncology* in May 2002 (now published - *Lancet Oncology*, January 4, 4:45-55, 2003). The estimates of the future number of lung cancer deaths in 2010 and 2020, partitioned according to changes in population demographics and risk, respectively, is being prepared as part of the time trend part of the project, involving 23 cancer sites (see 3.1.1).

2.1.4. EUROCHIP

The projects of EUROCHIP (European Cancer Health Indicators) and CaMon both contribute to the Health Monitoring Programme in the area of cancer knowledge. CaMon provides information on the basic indicators with regards the temporal and geographical impact of the disease in the Member States and throughout Europe. EUROCHIP is establishing, via a series of Expert meetings, a list of other cancer indicators that should be considered a priority for collection, analysis and action at the Commission level. The two projects have collaborated actively in the first year, exploiting their complementary activities to advise P Kramers (ECHI project) on compiling the appropriate cancer indicators to be included in the 'first phase set of core indicators'. F Bray is a Member of the EUROCHIP Panel of Experts since its foundation. A Micheli, the project leader of EUROCHIP and his associated colleagues contributed to the prevalence workshop held in Paris in February, 2003 (see 2.1.5).

2.1.5. Prevalence workshop

In collaboration with the French Cancer League, a one-day prevalence workshop will take place in Paris on 19 February 2003. The Workshop will focus on the usefulness of prevalence as a measure and on the problems encountered in measuring and estimating cancer prevalence. Philippe Mourouga, responsible for the workshop on behalf of the French Cancer League, visited IARC to discuss the structure, organisation, speakers and participants in this workshop. A preliminary programme (Annex 7) was prepared.

The views of the methodologists in charge of estimating prevalence will be confronted with the views of the users of this measure. People from each expert areas, with special interest or experience in the topic, were invited to participate.

2.1.6. Survival analysis (Dr Riccardo Capocaccia)

2.1.6.1. Information on cancer survival has been generated by the EURO CARE programme, although the last comprehensive data published, as EURO CARE-2 in 1999, relate to cancer cases diagnosed 1985-1989.

2.1.6.2. Survival data for patients diagnosed in the period 1990-1992 plus 1993-1994 have been extracted in the Istituto Superiore di Sanità (ISS) from the EURO CARE database and checked. A total of 1,380,000 cases for all cancers were eligible for the analysis. The procedures for the calculation of relative survival rates for the listed cancer sites, with the required sex, age group, and country specifications have been implemented. A text-format template of the output file (Annex 8) has been sent from ISS to IARC.

3. FORTHCOMING ACTIVITIES 1 DECEMBER 2002- 30 NOVEMBER 2003

3.1. Provision and dissemination of information on cancer

3.1.1. A systematic analysis of time trends of cancer incidence and mortality in Europe (Phases 2-4)

3.1.1.1. Based on the main comments and recommendations of the advisory group (see 2.1.3.1 and Annex 6), site-specific analyses of each cancer site are being undertaken by the secretariat at IARC (F Bray, A Loos, P McCarron, DM Parkin). This phase (Phase 2) of the activity extends from December 2002 to May 2003 and involves the extraction of the data, data quality checks (inclusion criteria), and the statistical analysis of the time trends data.

3.1.1.2. Twenty-three site-specific reports will be written on the basis of the three-way collaboration between the IARC Secretariat, the lead authors and the ENCR Members which will form 23 working groups (see Annex 4). To aid the interpretation of the trends and the writing of the reports, the IARC Secretariat will also provide a literature review of trends by cancer site for each corresponding working group. (Phase 3)

3.1.1.3. The trends in Europe will also be supplemented with trends in other industrialised countries for benchmarking purposes (Phase 4). These comparisons will be made in the discussion of the 23 site-specific scientific reports, as well as in an IARC Monograph on trends in cancer incidence and mortality in industrialised countries scheduled for 2004.

3.1.2. Prevalence workshop

As mentioned in 2.1.5, a one-day prevalence workshop will take place in Paris on 19 February 2003, in collaboration with the French Cancer League. A report of the meeting will be published jointly by IARC and the Cancer League.

3.1.3. EUCAN (1998 estimates)

3.1.3.1. In January 2003, the EUCAN dataset will be updated with estimates for 1998, based on the most recent cancer registry data in Europe. The software will be extended to incorporate cancer incidence and mortality estimates in 1998 in

EU candidate countries and negotiating candidate on the basis of the time trends component of the CaMon project (see 3.1.1).

3.1.3.2. In addition, short-term predictions of future cancer incidence and mortality burden in 2010 and 2020 will also be incorporated into the EUCAN package, together with estimates of recent trends for each cancer site. An online version of EUCAN will also be available on the CaMon website.

3.1.4. Article in the European Journal of Public Health

A report on the CaMon project in relation to the objectives, methodologies, results and expected contribution in relation to health policy in Member States was submitted to the commissioned Supplement of the European Journal of Public Health by 15 December 2002 for publication in Summer 2003.

3.1.5. Survival analysis (Dr Riccardo Capocaccia)

National survival estimates for EU member states without national coverage will be provided by the ecological regression method based on socio-economic aggregated variables (Mariotto *et al.*, CCC 13, 101-111, 2002) will be used. A set of databases (WHO-Health For All, Organisation for Economic Co-operation and Development, Human Development Database, United Nations, EUROSTAT, World Bank) to extract the relevant information has been identified. Statistical procedures have been prepared to carry out the analysis as soon as the registry-based survival data will be available.

3.1.6. Provision of data to the Health Information System

The EUCAN data is included in the morbidity area of the New Cronos database of EUROSTAT, and DM Parkin has assisted both the previous contractors to the Health Monitoring Programme, Cap Gemini, and the current contractors, Health Information Management (HIM) in addressing the feasibility of an EC Public Health Portal. This report and other CaMon-related publications will be uploaded on the IRC and thus made available on the Community's website before the end of 2003. Once the information system is established, databases of the most recent cancer incidence and mortality will be made directly available to the Community's public health information system (EUPHIN) in collaboration with the developers of the exchange system.

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