

EUROCHIP-II
FINAL SCIENTIFIC REPORT
ANNEX 02

**REQUEST FOR CONTRIBUTING
TO UPDATE OF ECHI SHORTLIST**

**SUGGESTIONS COMING FROM EUROCHIP-2
FOR CANCER INDICATORS**

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Dr. Andrea Micheli
Unit of Descriptive Epidemiology and Health Planning
Istituto Nazionale per lo Studio e la Cura e dei Tumori
Via Venezian, 1
20133 Milan
Italy
Tel. +39 02 2390 2869
Fax +39 02 2390 3528
E-mail micheli@istitutotumori.mi.it
lifetable@istitutotumori.mi.it

REQUEST FOR CONTRIBUTING TO UPDATE OF ECHI SHORTLIST

SUGGESTIONS COMING FROM EUROCHIP-2 FOR CANCER INDICATORS

The EUROCHIP working group revised the ECHI short list relatively to indicators related with cancer. In the following table 1 we compare the ECHI short list (ECHI sl) with the EUROCHIP-1 suggested short list (i.e. European Cancer Indicators short list – ECI sl). The role of the indicators as suggested by EUROCHIP-1 is also presented in the following pages (for details on cancer indicators see ANNEXES A2 and A3 of the “EUROCHIP-1 final report” available on DG Sanco web site or at the EUROCHIP web site www.tumori.net/eurochip).

Table 1. The ECHI short list versus the EUROCHIP-1 suggested short list

Topic	ECHI short list (ECHI sl)	See ECHI sl report: Page (and section)	Suggestions coming from the EUROCHIP-1 cancer indicator short list (ECI sl)
Health status	Standardised death rates (65 causes of death)	4 (Sect 1)	ECI sl agrees with ECHI sl for cancer causes. However for reason of consistency with incidence indicator, this indicator should be nominated just “Mortality”
	Lung cancer	4 (Sect 1)	ECI sl proposes: a) to refer to a unique indicator called Cancer incidence, b) in any case, to clarify that all these indicators refer to incidence, c) to see in pages 2-3 of this document the malignancies list that cancer incidence indicator refers, with the rationale of the chooses
	Breast cancer	5 (Sect 1)	
	Incidence of all cancers	13 (waiting list)	
	Incidence of malignant melanoma		
Prevalence of any chronic illness	5 (Sect 1)	ECI sl proposes to refer to cancer specific prevalence indicator: see pages 6-7 of the present document for details	
Determinant of health	Regular smokers	5 (Sect 1)	ECI sl agrees with ECHI sl
	Total alcohol consumption	5 (Sect 1)	ECI sl agrees with ECHI sl
	Consumption/availability of fruit	5 (Sect 1)	ECI sl agrees with ECHI sl
	Consumption/availability of vegetables	6 (Sect 1)	ECI sl agrees with ECHI sl
	PM10 exposure	6 (Sect 1)	ECI sl agrees with ECHI sl
	Body Mass Index	9 (Sect 2)	ECI sl agrees with ECHI sl
	Physical activity	10 (Sect 2)	ECI sl agrees with ECHI sl
	Exposure to carcinogens at work	14 (waiting list)	See page 10 of this document for details
Health services	Breast cancer screening coverage	6 (Sect 1)	The European Network of Cancer (ECN) is working on collection and standardization of these indicators
	Cervical cancer screening coverage	6 (Sect 1)	
	Colorectal cancer screening coverage	NEW	
	Survival rates breast, cervical cancer	7 (Sect 1)	ECI sl proposes to refer to a unique indicator called “Cancer survival”. See page 4-5 of this document for details
	Cancer treatment quality	11 (Sect 2)	Shift to Section 3. See pages 8-9 of this document for details
Health Promotion	Policies on ETS exposure	7 (Sect 1)	ECI sl agrees with ECHI sl

The ECI sl was proposed by large European consensus conferences organised by the EUROCHIP-1 network. More than 150 cancer experts across Europe participated in the definition of the list ECI sl. It is to highlight that cancer is in spectacularly better condition than other diseases because cancer has a long history in collecting high quality population based mortality and incidence data. Large experiences in population based survival and prevalence statistics dated since 1990 (EUROCARE and EUROPREVAL studies).

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CANCER INCIDENCE

Indicator name: Cancer incidence (it will be expressed as age-standardized cancer incidence rates) - 10 cancer malignancies. ECI sl suggested the following cancer malignancies:

- *All cancers combined without non melanoma skin cancers*: for relevance with cancer burden and costs
- *Lung cancer*: for relevance with prevention and preventable deaths estimation
- *Breast cancer*: for relevance with monitoring screening programmes and to evaluate care (tamoxifen)
- *Colorectal cancer*: for relevance with evaluation of early diagnosis, care and diagnosis delay
- *Prostate cancer*: for relevance with future cancer burden trends and future resources utilization
- *Stomach cancer*: for relevance with monitoring the decreasing trends (ethnic-nationality differences)
- *Melanoma*: for relevance with prevention (early diagnosis-stage migration)
- *Cervical cancer*: for relevance with screening.
- *Leukaemias and lymphomas*: for relevance with treatment and health services
- *All childhood tumours (Age: 0-14)*: for relevance with surveillance

Addition or modification of existing shortlist indicator?

ECHI short list (ECHI sl)	See ECHI sl: Page (and section)	Suggestions coming from the EUROCHIP-1 cancer indicator short list (ECI sl)
Lung cancer	4 (Sect 1)	ECI sl proposes: a) to refer to a unique indicator called “Cancer incidence”, b) in any case, to clarify that all these indicators refer to incidence
Breast cancer	5 (Sect 1)	
Incidence of all cancers	13	
Incidence of malignant melanoma	(waiting list)	

Section within the indicator structure tree:

Section: 1. Topic: Health status

Rationale for submission: For details see ANNEX 1

Incidence is the main epidemiological measurement of cancer occurrence.

Importance for overall health status and large health problem at population level: YES

Strength of evidence for inequalities in health: YES

Importance for effective interventions and health policies: YES (specific for cancer prevention interventions)

Operational definition (classification, numerator, denominator)

An incidence rate is a ratio of the number of new cases within a given period over the population at risk in that period:

$$i(s, sx, g, p, a) = \frac{I(s, sx, g, p, a)}{P(sx, g, p, a)}$$

$I(s, sx, g, p, a)$ = number of cancer cases specific per cancer site (s), sex (sx), geographical area (g), period (p), age (a)

$Pm(sx, g, p, a)$ = person-years at risk specific per sex (sx), geographical area (g), period (p), age (a)

The person-years at risk is the sum of times during which the persons, of the population considered, are at risk.

This indicator has to be standardized (European std) to allow comparison between different geographical areas.

Type of data source (hospital records, interview survey, etc)

The data sources are the population-based cancer registries (CRs), bodies finalized to collection of information of all cancer cases diagnosed in the population covered by them. CR publish incidence data with a lack of 2-5 years.

Stratification by population subgroups (gender, age group, socio-economic, if relevant)

Gender, age, cancer site

Geographical definition (national, regional, etc)

In same member states CR covers the entire population, in others one ore more CRs cover a fraction of the population.

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The European Network of Cancer Registries (ENCR), the International Agency on Research on Cancer (IARC) and other produced *cancer incidence estimates* at national level, where missing, by mathematical models.

Criteria for evaluation of the quality of data

Quality criteria about CR incidence data are well defined. CR data included in Cancer Incidence in Five Continents (CI5C) IARC publication respect such well established criteria (internal consistency, histological verification, death certificate only, other and unspecified, age unknown).

Data availability in the 25 Member States:

	Availability at national level (CRs are national)	Availability at regional/local level (CRs are local)	Availability at national level by estimates	Notes
Austria		X	X	A national CR is recently implemented
Belgium		X	X	
Bulgaria	X			CR exists but it is not included in last CI5C*
Cyprus	X			CR exists but it is not included in last CI5C*
Czech Republic	X			
Denmark	X			
Estonia	X			
Finland	X			
France		X	X	
Germany		X	X	
Greece				No CR
Hungary	?			CR exists but it is not included in last CI5C*
Iceland	X			
Ireland	X			
Italy		X	X	
Latvia	X			
Lithuania	X			
Luxembourg				No CR
Malta	X			
Netherlands		X	X	
Norway	X			
Poland		X	X	
Portugal		X	X	
Romania	?			CR exists but it is not included in last CI5C*
Slovakia	X			
Slovenia	X			
Spain		X	X	
Sweden	X			
Switzerland		X	X	
United Kingdom		X	X	

*CI5C: Cancer Incidence in Five Continents - VIIIth edition. IARC is finalising collection of data for IXth Edition

Source/reference (e.g. name of the project) and periodicity of availability

Single CR incidence data: Cancer Registries. They publish data periodically (in most cases every year)

Centralization of CR data: IARC centralized periodically data for CI5C

ENCR produced in 1998 EUROCIM database with European Cancer Registries data.

National estimates: IARC produced the EUCAN database with estimates (last available incidence year: 1998).

<http://www-dep.iarc.fr/eucan/eucan.htm>

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CANCER SURVIVAL

Indicator name: Cancer survival (it will be expressed as age-standardized-5-yrs relative cancer survival rates) - 10 cancer malignancies. ECI sl suggested the following cancer malignancies (see page 2 for relevance):

- All cancers combined without non melanoma skin cancers
- Lung cancer
- Breast cancer
- Colorectal cancer
- Prostate cancer
- Stomach cancer
- Melanoma
- Cervical cancer
- Leukaemias and lymphomas
- All childhood tumours (Age: 0-14)

Addition or modification of existing shortlist indicator?

ECHI short list (ECHI sl)	See ECHI sl: Page (and section)	Suggestions coming from the EUROCHIP-1 cancer indicator short list (ECI sl)
Survival rates breast, cervical cancer	7 (Sect 1)	ECI sl proposes to refer to a unique indicator called “Cancer survival”

Section within the indicator structure tree:

Section: 2. Topic: Health status

Rationale for submission: For details see ANNEX 1

Cancer survival is an indicator of the effectiveness of a country’s health care systems, in the area of cancer control.

Importance for overall health status and large health problem at population level: YES

Strength of evidence for inequalities in health: YES

Importance for effective interventions and health policies: YES

Operational definition (classification, numerator, denominator)

Cancer survival is described by the indicator “relative survival”, i.e. survival probability of a patient with cancer diagnosis, at competitive mortality net. It is calculated as follows:

$$RS_d(s, sx, g, p, a) = \frac{S_p(s, sx, g, p, a)}{S(sx, g, p, a)}$$

$S_p(s, sx, g, p, a)$ = cancer patients’ observed survival, shows the proportion of patients who are alive after a given lapse of time from diagnosis (5 yrs in this case). It is specific by site (s), sex (sx), geographical area (g), period (p), age (a)

$S(s, sx, g, p, a)$ = expected survival, indicates survival probability of the population of reference. It is specific for sex (sx), geographical area (g), period (p), age (a).

For comparison, relative survival is age standardised following specific cancer malignancy age distribution of cases.

Type of data source (hospital records, interview survey, etc)

The data sources are the population-based cancer registries (CRs), bodies finalized to collection of information of all cancer cases diagnosed in the population covered by them. In order to have survival data, CRs have to collect data on incident cases and follow-up them for a given period from diagnosis.

Stratification by population subgroups (gender, age group, socio-economic, if relevant)

Gender, age, cancer site

Geographical definition (national, regional, etc)

In some Member States CR covers the entire population, in others one or more CRs cover a fraction of the population.

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Methods for estimating cancer survival at national levels, where missing, are proposing by EUROCORE.

Criteria for evaluation of the quality of data

Only CR included CI5C IARC publication are included in EUROCORE dataset. Quality criteria of survival data are defined by the EUROCORE project (Capocaccia R. Annals of Oncology 2003)

Data availability in the 25 Member States:

	Availability at national level (CRs are national)	Availability at regional/local level (CRs are local)	Availability at national level by estimates	Notes
Austria		X	X	A national CR is recently implemented
Belgium		In 2007	In 2007	
Bulgaria	?			CR exists but it is not included in last CI5C*
Cyprus	?			CR exists but it is not included in last CI5C*
Czech Republic		X	X	
Denmark	X			
Estonia	X			
Finland	X			
France		X	X	
Germany		X	X	
Greece				No CR
Hungary	?			CR exists but it is not included in last CI5C*
Iceland	X			
Ireland	In 2007			
Italy		X	X	
Latvia	?			CR does not participate in EUROCORE
Lithuania	?			CR does not participate in EUROCORE
Luxembourg				No CR
Malta	X			
Netherlands		X	X	
Norway	X			
Poland		X	X	
Portugal		X	X	
Romania	?			CR exists but it is not included in last CI5C*
Slovakia	X			
Slovenia	X			
Spain		X	X	
Sweden	X			
Switzerland		X	X	
United Kingdom		X	X	

*CI5C: Cancer Incidence in Five Continents - VIIIth edition. IARC is finalising collection of data for IXth Edition

Source/reference (e.g. name of the project) and periodicity of availability

Single CR survival data: Cancer Registries. Some CRs publish data on survival periodically

Centralization of CR data: EUROCORE (Sant M et al. Ann Oncol. 2003;14 Suppl 5:V61-V118) published data in Europe for cancer patients diagnosed in 1978-94. Update of survival data are programmed in 2007 (for diagnosis period 1995-99). Data are available at www.eurocare.it

Methodology: Capocaccia R et al. Ann Oncol 14: V14-V27.

International cooperation: EUROCORE is in charge with the CONCORD project (PI. Prof Michel Coleman) aimed to compare CR survival data in five continents.

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CANCER PREVALENCE

Indicator name: Cancer prevalence (it will be expressed as crude cancer prevalence proportions) - 10 cancer malignancies. ECI sl suggested the following cancer malignancies (see page 2 for relevance):

- All cancers combined without non melanoma skin cancers
- Lung cancer
- Breast cancer
- Colorectal cancer
- Prostate cancer
- Stomach cancer
- Melanoma
- Cervical cancer
- Leukaemias and lymphomas
- All childhood tumours (Age: 0-14)

Addition or modification of existing shortlist indicator?

ECHI short list (ECHI sl)	See ECHI sl: Page (and section)	Suggestions coming from the EUROCHIP-1 cancer indicator short list (ECI sl)
Prevalence of any chronic illness	5 (Sect 1)	ECI sl proposes to refer to cancer specific prevalence indicator

Section within the indicator structure tree:

Section: 2. Topic: Health status

Rationale for submission: For details see ANNEX 1

Prevalence indicates how many people in an exact date (ex 31/12/xxxx) show potential medical, physical, psychological or social problems as a consequence of cancer. The indicator is useful for health planning, resources allocation.

Importance for overall health status and large health problem at population level: YES

Strength of evidence for inequalities in health: YES

Importance for effective interventions and health policies: YES (specific for cancer interventions)

Operational definition (classification, numerator, denominator)

Prevalent cases are people from a population, alive up to a given date, and who had previously been diagnosed cancer. New incidence cases and still alive incident cases of previous years are included in the prevalence. Prevalent proportion shows the proportion of prevalent cases on a total resident population in a given area. It is calculated as follows:

$$p(s, sx, g, p, a) = \frac{P(s, sx, g, p, a)}{Pm(sx, g, p, a)}$$

P (s,sx,g,p,a) = estimated number of survivors who had been diagnosed cancer, specific per cancer site (s), sex (sx), geographic area (g), calendar year (p), age (a)

Pm (sx,g,p,a)= average population specific per sex (sx), geographic area (g), calendar year (p), age (a)

Type of data source (hospital records, interview survey, etc)

The data sources are the population-based cancer registries (CRs), bodies finalized to collection of information of all cancer cases diagnosed in the population covered by them. In order to have prevalence, CRs have to collect data on incidence and on survival (that is on follow-up of the cancer patients).

Stratification by population subgroups (gender, age group, socio-economic, if relevant)

Gender, age, cancer site

Geographical definition (national, regional, etc)

In some Member States CR covers the entire population, in others one or more CRS cover a fraction of the population.

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Five year cancer prevalence estimates at CR level, where missing, are produced by GLOBOCAN; complete prevalence estimates, where missing (i.e. most of European CR), are produced by EUROPREVAL.

Criteria for evaluation of the quality of data

Only CR included CI5C IARC publication are included in EUROPREVAL dataset. Quality criteria of survival data (and consequently on prevalence) are defined by the EUROCCARE project (Capocaccia R. Annals of Oncology 2003)

Possible data availability in the 25 Member States:

	Availability at national level (CRs are national)	Availability at regional/local level (CRs are local)	Notes
Austria		X	A national CR is recently implemented
Belgium		In 2007	
Bulgaria	?		CR exists but it is not included in last CI5C*
Cyprus	?		CR exists but it is not included in last CI5C*
Czech Republic		In 2007	
Denmark	X		
Estonia	X		
Finland	X		
France		X	
Germany		X	
Greece			No CR
Hungary	?		CR exists but it is not included in last CI5C*
Iceland	X		
Ireland	In 2007		
Italy		X	
Latvia	?		CR does not participate in EUROCCARE
Lithuania	?		CR does not participate in EUROCCARE
Luxembourg			No CR
Malta	X		
Netherlands		X	
Norway	X		
Poland		X	
Portugal		In 2007	
Romania	?		CR exists but it is not included in last CI5C*
Slovakia	X		
Slovenia	X		
Spain		X	
Sweden	X		
Switzerland		X	
United Kingdom		X	

*CI5C: Cancer Incidence in Five Continents - VIIIth edition. IARC is finalising collection of data for IXth Edition

Source/reference (e.g. name of the project) and periodicity of availability

Single CR prevalence data: Cancer Registries. Very few CRs periodically publish data on prevalence

Centralization of CR data: EUROPREVAL (Micheli A et al.. Ann Onc 2002;132(6):840-865) published data in Europe at 31/12/1992. Update of prevalence data are programmed in 2007 (at the date 31/12/2000). Recently the EUROPREVAL database has been merged with the EUROCCARE database.

International cooperation: Methodology used by EUROPREVAL (Capocaccia R et al, Ann Onc 2002;132(6)) is used also by the SEER Program of the NCI in US. The SEER*Stat (the US CR database) implemented the EUROPREVAL methodology to estimate prevalence in US.

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CANCER TREATMENT QUALITY

(note: ECI Is proposes two indicators “Cancer treatment delay” and “Compliance with cancer guidelines”)

First ECI Is cancer treatment quality indicator.

Indicator name: Cancer treatment delay - 3 cancer malignancies

List of ECI sl suggested cancer malignancies:

- Breast cancer
- Colon cancer
- Rectal cancer

Addition or modification of existing shortlist indicator?

ECHI short list (ECHI sl)	See ECHI sl: Page (and section)	Suggestions coming from the EUROCHIP-1 cancer indicator short list (ECI sl)
Cancer treatment quality	11 (Sect 2)	Shift to Section 3.

Section within the indicator structure tree:

Section: 3. Topic: Health services

Rationale for submission: For details see ANNEX 1

To explain part of the differences in cancer survival.

Importance for overall health status and large health problem at population level: YES

Strength of evidence for inequalities in health: YES

Importance for effective interventions and health policies: YES (specific for cancer interventions)

Operational definition (classification, numerator, denominator)

It is necessary to know the following dates in the history of a cancer patient:

- First visit to general practitioner
- First request for a clinical/hospital appointment
- First clinical/hospital appointment
- Date of definitive diagnosis
- Date of first treatment (surgery, systemic therapy or radiotherapy)

Type of data source (hospital records, interview survey, etc)

Data sources are population-based cancer registries (CRs), finalized to collection of information of all cancer cases diagnosed in the covered population. In order to collect previous dates some modifications in CR organisation might be necessary. EUROCHIP-2 is organising ad hoc studies to test the feasibility in collecting such a indicator.

Stratification by population subgroups (gender, age group, socio-economic, if relevant)

Gender, age, cancer site

Geographical definition (national, regional, etc)

In some Member States CR covers the entire population, in others one or more CRS cover a fraction of the population.

Criteria for evaluation of the quality of data

EUROCHIP-2 is organizing pilot studies in 12 European countries to understand if it is possible to collect these indicators using CR as data source. The EUROCHIP Pilot Studies protocol is available in internet at the web-site:

www.tumori.net/eurochip

Data availability in the 25 Member States:

No data at the present

Source/reference (e.g. name of the project) and periodicity of availability

No reference at the moment. Results will be produced by EUROCHIP-2

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Second ECI is cancer treatment quality indicator.

Indicator name: Compliance with cancer guidelines - 3 cancer malignancies

List of ECI sl suggested cancer malignancies:

- Breast cancer
- Colon cancer
- Rectal cancer

Addition or modification of existing shortlist indicator?

ECHI short list (ECHI sl)	See ECHI sl: Page (and section)	Suggestions coming from the EUROCHIP-1 cancer indicator short list (ECI sl)
Cancer treatment quality	11 (Sect 2)	Shift to Section 3.

Section within the indicator structure tree:

Section: 3. Topic: Health services

Rationale for submission: For details see ANNEX 1

To explain differences in cancer survival.

Importance for overall health status and large health problem at population level: YES

Strength of evidence for inequalities in health: YES

Importance for effective interventions and health policies: YES (specific for cancer interventions)

Operational definition (classification, numerator, denominator)

The specific indicators proposed to be a proxy of compliance with guidelines are:

- o For breast cancer (female):
 - Proportion of post-operative breast radiotherapy after breast conserving surgery
 - Proportion of breast conservation surgery in pT1 cases (multiple cancers excluded)
- o For colon cancer:
 - Proportion of patients with Dukes C (or TNM Stage 3) receiving adjuvant chemotherapy
 - Proportion of patients with Dukes B (or TNM Stage 2) not receiving adjuvant chemotherapy
- o For rectal cancer:
 - Proportion of patients with Dukes B or C receiving pre-operative radiotherapy

Type of data source (hospital records, interview survey, etc)

Data sources are population-based cancer registries (CRs), finalized to collection of information of all cancer cases diagnosed in the covered population. In order to collect data some modifications in CR organisation might be necessary.

EUROCHIP-2 is organising ad hoc studies to test the feasibility in collecting such a indicator.

Stratification by population subgroups (gender, age group, socio-economic, if relevant)

Gender, age, cancer site

Geographical definition (national, regional, etc)

In some Member States CR covers the entire population, in others one or more CRS cover a fraction of the population.

Criteria for evaluation of the quality of data

EUROCHIP-2 is organizing pilot studies in 12 European countries to understand if it is possible to collect these indicators using CR as data source. The EUROCHIP Pilot Studies protocol is available in internet at the web-site:

www.tumori.net/eurochip

Data availability in the 25 Member States:

No data at present

Source/reference (e.g. name of the project) and periodicity of availability

No reference at the moment. Results will be produced by EUROCHIP-2

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EXPOSURE TO CARCINOGENS AT WORK

Indicator name: Prevalence of occupational exposure to carcinogens

Addition or modification of existing shortlist indicator?

ECHI short list (ECHI sl)	See ECHI sl: Page (and section)	Suggestions coming from the EUROCHIP-1 cancer indicator short list (ECI sl)
Exposure to carcinogens at work	14 (waiting list)	Details are presented in this page

Section within the indicator structure tree:

Section: 2. Topic: Determinants of health

Rationale for submission:

To compare the number of workers at cancer risk in various countries.

Importance for overall health status and large health problem at population level: YES

Strength of evidence for inequalities in health: YES

Importance for effective interventions and health policies: YES (specific for workers)

Operational definition (classification, numerator, denominator)

The indicator refers to the prevalence of exposure to carcinogens (recognised by the “International Agency for Research on Cancer” relevant publications: Products included into 1, 2A and 2B rank are considered).

Type of data source (hospital records, interview survey, etc)

The source is the CAREX database. This database, subsidised by the «Europe Against Cancer» Programme, estimated the occupational exposure in all European countries by agent and by industries for the period 1990-93. By updating the already available database with the same methodology we could also study the changes to occupational exposure to carcinogens in the countries in the past 10 years. The CAREX project could improve the job-exposure matrix.

Stratification by population subgroups (gender, age group, socio-economic, if relevant)

Possibly by carcinogens

Geographical definition (national, regional, etc)

Data estimated by CAREX are at national level

Criteria for evaluation of the quality of data

Quality criteria are suggested by the CAREX project.

Data availability in the 25 Member States:

CAREX was performed:

- for the period 1990-93 in Austria, Belgium, Denmark, Finland, France, Germany, UK, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain.
- For 1997 in Czech Republic, Estonia, Lithuania, Latvia

Source/reference (e.g. name of the project) and periodicity of availability

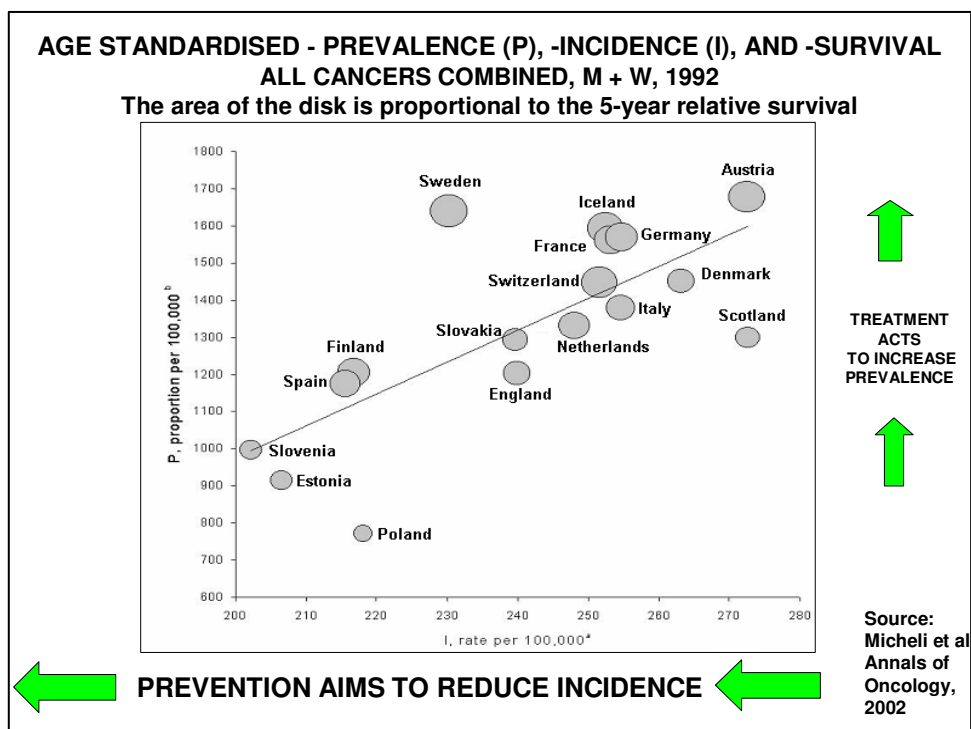
- Kauppinen T, Toikkanen J, Pedersen D *et al*: *Occupational exposure to carcinogens in the European Union in 1990-93*. Finnish Institute of Occupational Health, Helsinki 1998

ANNEX 1

WHY IS IT NECESSARY TO COLLECT CANCER INCIDENCE, SURVIVAL AND PREVALENCE?

In order to reply to this question two figures are shown: on the relationship between incidence and total prevalence in Europe for all cancers, men and women combined. Data provided in the '90. Figure a); on differences in all cancer combined 5-yr relative survival showed by the EUROCARE project, for men and women separately Figure b).

Figure a



Comment

In Figure a, each disk represents a country. The area of the disk is proportional to the five year relative survival (indicator proposed at pages 4-5). In this figure, total prevalence (pages 6-7) increased as incidence (pages 2-3) increased. Western rich countries, mainly on the right side of the figure, tend to show higher incidence and prevalence compared with poorer eastern countries (on the left).

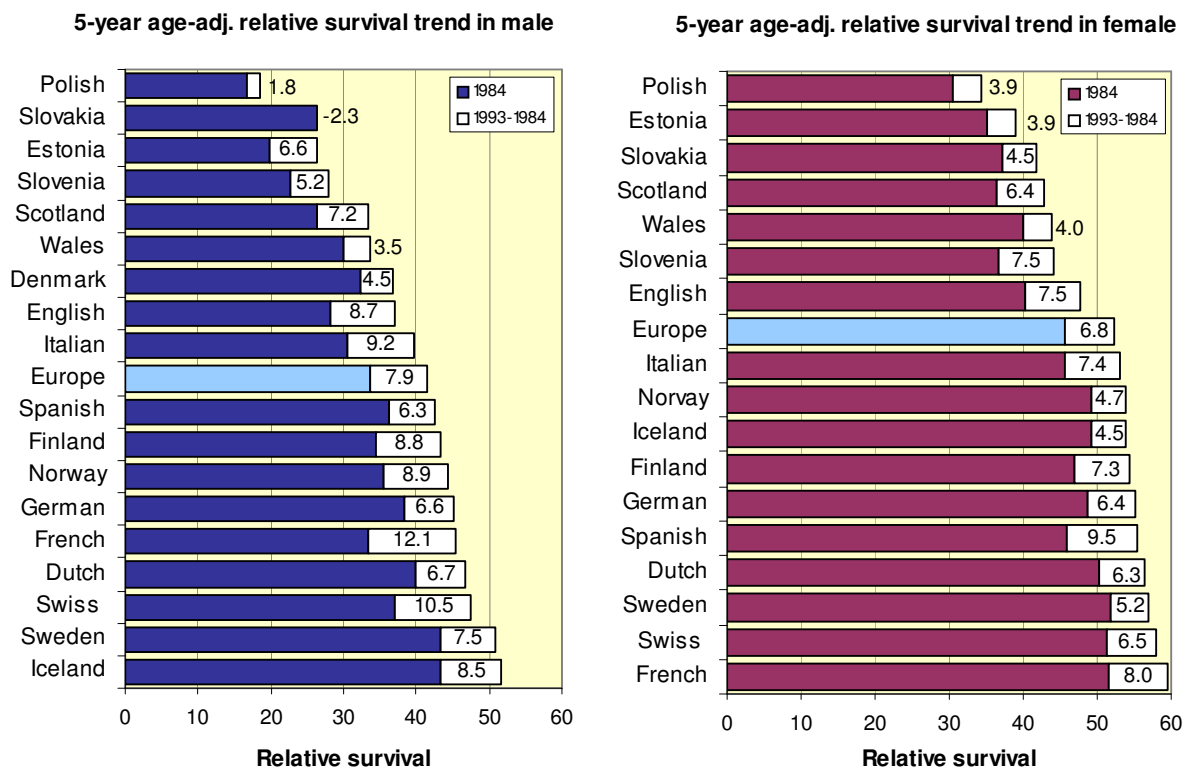
Cancer control includes primary prevention. Primary prevention aims to reduce incidence, and change the relations here presented. Treatment increases survival and prevalence. Improving treatment also modifies this relationship.

For example, Sweden, with a long experience in cancer control supported by a high level information system, stands out with low incidence and high survival and prevalence. What we expect with a cancer control throughout Europe is to modify this strong relation between incidence and prevalence.

Conclusion

In order to know if cancer control activities reach their objectives incidence and prevalence indicators have to be collected.

Figure b



Comment

Figure b is one of the main results produced by the EUROCHIP project. Each bar represents a country and indicates 5-years all cancer combined survival of patients diagnosed in 1993 in comparison with those diagnosed ten years before. Survivals for males are in the figure on the left and those for females on the right. The numbers in the bars identify in terms of percentage the increase – (or decrease for males in Slovakia) of 5-year relative cancer survival in ten years.

Looking into these figures, various aspects can be underlined:

- Dramatic differences in cancer survival exist across Europe
- Cancer survivals in the Eastern Europe are systematically lower to those in Western Europe
- Female survival is higher than male survival
- England, Scotland and Denmark have lower survival levels than other Western European countries. The UK Health Ministry started from these figures to implement the national cancer control plan.

Conclusions

The indicator on cancer survival is necessary to show inequalities across Europe in terms of care, while indicators on cancer treatment quality are necessary to investigate on the determinants of these differences.