



EUROPEAN FILE

Europe against cancer

TARGET: 15% FEWER VICTIMS BY THE YEAR 2000



1990-94
SECOND ACTION PLAN

Europe is taking up arms against cancer. It is a just war. If the increase observed in recent years were to continue, by the year 2000 one European in three would be stricken by cancer during their lifetime. We no longer have to accept, however, that cancer is a fatal disease. It is now established that the incidence of this scourge could be reduced by the combined effects of prevention and treatment.¹

Cancer can be avoided and cured

Today about 50 % of persons with cancer have a good chance of survival. In addition, due to preventive action, significant reductions have been noted in the occurrence of certain types of cancer. This is particularly striking in the case of stomach cancer, where the decrease may be due to improved eating habits. In certain countries, such as the United States and the United Kingdom, the incidence of lung cancer in young and middle-aged men is now going down, thanks to the beneficial effects of the anti-smoking campaigns which started earlier in those countries than in others.

The risk of dying from cancer in Europe has been mapped out for the European Commission by the International Agency for Research on Cancer. There are significant variations in the occurrence of the principal types of cancer in Europe: such considerable differences between countries, even between one region and another, often indicate that differences in lifestyles, working conditions and environment play a role.

The nature of the factors responsible for differences in cancer risks is not always well understood, but it is now universally accepted that three-quarters of cancers are due to such factors. These factors, when fully understood, can be modified. Today, although all cancers cannot be prevented, a certain reduction is within reach.

Europe, too, provides hope

At their meeting in Milan in June 1985, the Heads of State or Government of the European Community agreed in principle on a European programme against cancer, so that the Community might take more account of the concerns of its citizens in regard to health.

Since January 1986, a committee of high-level cancer experts has been advising the European Commission on the formulation of the Europe against cancer programme. This programme has two cornerstones: the knowledge that a substantial number of cancers can be avoided and the fact that early detection of some types can lead to a better chance of cure.

¹ This file replaces our No 5-6/88.

Cancer deaths in Europe (1986)

Country	Total deaths	Cancer deaths		
		Total	Lung (men)	Breast (women)
Belgium	112 791	27 220	5 780	2 400
Denmark	57 777	14 946	2 220	1 290
FR of Germany	701 832	163 038	21 310	14 165
Greece	91 783	18 365	3 682	1 193
Spain ¹	299 409	65 810	9 771	4 231
France	546 926	133 008	17 393	9 530
Ireland	33 704	6 886	1 118	571
Italy ²	547 436	133 770	23 597	9 953
Luxembourg	4 014	938	190	77
Netherlands	125 307	33 966	7 536	3 040
Portugal	95 828	16 241	1 600	1 231
United Kingdom	660 735	156 858	28 627	15 245
European Community	3 277 542	771 046	122 824	62 926

Based on WHO figures.

¹ 1984.

² 1985.

Proportion of European cancer deaths attributable to various factors

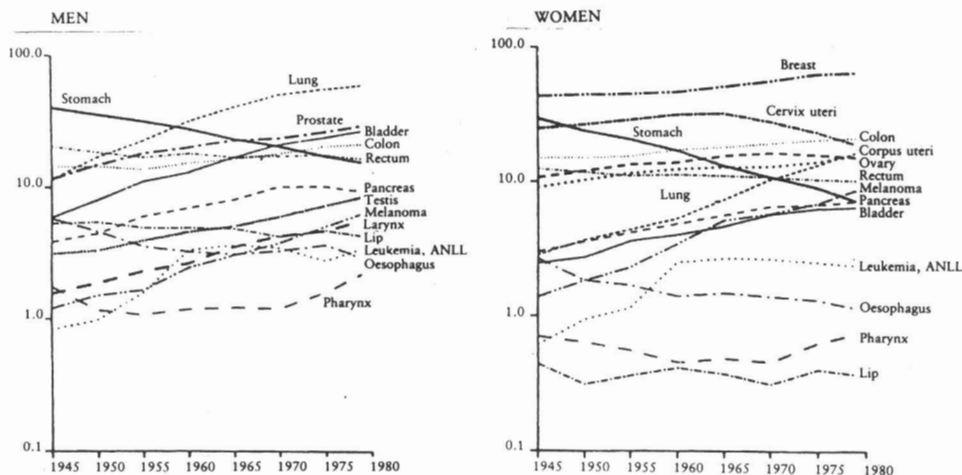
These attempted estimates are largely based on the work of Higginson and Muir (1979) for Birmingham in the United Kingdom, of Doll and Peto (1981) for the United States and of Tubiana (1985) for France. They incorporate many uncertain factors and should, in any case, be adapted to differing national situations.

Factors	Best estimate (in %)	Range of estimates (in %)	Estimated annual number of deaths
Tobacco	30	25-35	220 000
Alcohol	4 ¹	2-5	30 000
Diet	30 ?	10-50	220 000 ?
Occupation	4	2-8	30 000
Infection	3 ?	1-10	22 000 ?
Geophysics ²	3	2-4	22 000

¹ Could be higher, certainly extremely variable by country (e.g. 10% in France).

² Radioactivity and solar rays.

Trend in the number of new cases of cancer in Denmark 1943-80 (at constant age, per 100 000 population)



The trend in numbers of new cancer cases over the years can be studied by means of the data collected by cancer registers. The Danish register is the oldest and one of the best in Europe. It allows us to follow the evolution of cancer cases since 1942.

It is possible to discern a marked reduction in the number of stomach cancers (probably linked to improved dietary conditions), a clear slowing-down of the increase in lung cancer in men (linked to a reduction in smoking) and a very rapid increase in melanomas (doubtlessly linked to the increasingly widespread practice of brutal, intense and prolonged exposure to the sun).

Source: Ole Møller Jensen *et al.*, 'Cancer registration in Denmark' in *National Institute Monograph* No 65, pp. 245-251.

The aim is to reduce mortality from cancer in Europe by 15 %, between now and the year 2000.

The programme covers four areas: cancer prevention, health information and education, training of health personnel and cancer research.

Where it all begins: cancer prevention

Tobacco and alcohol are without doubt at the origin of almost a third of all cancers in Europe; diet may play a role in the development of another third. Other factors such as occupational exposure to certain chemicals, exposure to ultraviolet rays, certain viral infections and radiation also carry a risk of cancer. European activities to prevent cancer are grouped under five major headings:

- *The anti-smoking campaign.* 85 % of lung cancer cases are linked with smoking. Furthermore, in smokers the risk of cancer is increased in all tissues

that directly or indirectly come into contact with tobacco smoke: lips, tongue and mouth, throat, oesophagus, pancreas and urinary tract. By using the powers available to it, the European Community will strengthen national activities in the fight against smoking. For example, to eliminate barriers to trade which hinder its economy, while taking full account of public health concerns, the European Community has already succeeded, in the first action plan of 1987-89, in getting the Member States to:

- harmonize the labelling of cigarette packets before the end of 1991, by making obligatory health warnings of the kind already given in countries such as Ireland ('Smoking causes cancer');
- prohibit cigarettes with a high tar content (15 mg maximum from 31 December 1992 and 12 mg maximum from 31 December 1997, with a temporary derogation for Greece) as was already done in Spain and Portugal;
- prohibit all tobacco advertising on television;
- prohibit smoking in public places.

Under the second action plan for 1990-94, other proposals for Community legislation should be adopted, aiming to:

- regulate advertising of brand names of tobacco products, including 'clandestine' advertising;
 - align taxes on tobacco upwards, which will cause cigarette price rises — in some cases substantial ones — in southern European countries;
 - eliminate tax-free sales of tobacco products for travellers within the Community.
- *Improving eating habits.* The conclusions about tobacco smoking are unambiguous; so are the observations about the excessive drinking of alcohol. By contrast, there are still uncertainties about the influence of eating habits on the development of certain types of cancer.

However, the research available points to a few important observations: excessive weight and a diet low in fresh fruit and vegetables or in fibre increase the risk of certain cancers.

Accordingly, activities of the Europe against cancer programme include:

- consumer protection through better nutritional labelling for foodstuffs, to be implemented before the end of 1992;
- amalgamation of existing data on nutrition and cancer and more detailed European research on this theme;

EUROPEAN CODE AGAINST CANCER

Committee of Cancer Experts:

'If the European Code were respected, there would be a significant reduction in the number of deaths from cancer in the Community; the decrease could be about 15 % by the year 2000'

CERTAIN CANCERS MAY BE AVOIDED:

1. Do not smoke

Smokers, stop as quickly as possible and do not smoke in the presence of others

2. Moderate your consumption of alcoholic drinks,

beers, wines or spirits

3. Avoid excessive exposure to the sun

4. Follow health and safety instructions at work

concerning production, handling, or use of any substance which may cause cancer.

Your general health will benefit from the following two commandments which may also reduce the risk of some cancers:

5. Frequently eat fresh fruits and vegetables and cereals with a high fibre content

6. Avoid becoming overweight

and limit your intake of fatty foods

MORE CANCERS WILL BE CURED IF DETECTED EARLY

7. See a doctor if you notice an unexplained change: appearance of a lump, a change in a mole or abnormal bleeding

8. See a doctor if you have persistent problems,

such as a persistent cough, a persistent hoarseness, a change in bowel habits or an unexplained weight loss

For women:

9. Have a cervical smear regularly

10. Check your breasts regularly

and, if possible, undergo mammography at regular intervals above the age of 50



Europe against cancer

- formulating nutritional recommendations and supporting health information and education campaigns.
- *Protection against carcinogenic agents.* Four major initiatives are under way:
- speeding up the establishment of an inventory of carcinogenic chemical substances;
 - the adoption of new directives on the protection of workers in order to reduce the number of occupational cancers, as has already been done in the case of asbestos;
 - protection against ionizing radiation with, for example, the adoption of maximal limit values for contamination of foodstuffs;
 - the implementation of new measures to protect consumers against carcinogenic substances.
- *Systematic screening and early diagnosis.* In certain organs or tissues, a cancer is often preceded by precancerous lesions. Thus, systematic screening for cervical cancer enables cancer development to be stopped by simple surgical removal of the cancerous lesions detected. The early detection of breast cancer by screening also increases the chance of cure. Cancer of the breast and the uterine cervix, which are the tumours occurring most frequently in women are therefore the subject of a specific action to promote exchanges of information on systematic screening and early diagnosis.
- *The European Code against cancer.* The high-level cancer experts who advise the European Commission have drawn up a few simple rules by which people can help to significantly reduce their own risk of cancer. This European Code against cancer has been approved by Health Ministers of the 12 Member States and by all the cancer associations. As emphasized by the European Community Committee of Cancer Experts: 'If the European Code were respected, there would be a significant reduction in the number of deaths from cancer in the Community; the decrease could be as high as 15 % by the year 2000'.

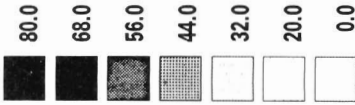
Inform and educate in order to save lives

Cancer is not necessarily a fatal disease, yet it is a subject on which obscurantism is the rule. The European Community has therefore decided to reinforce existing national activities in the health information and education field, working through those who have an essential involvement, such as the associations and leagues against cancer and family doctors.

Through these well-placed agents, the Community encourages the widest possible dissemination of the European Code against cancer. The Community encourages

Deaths from lung cancer in men

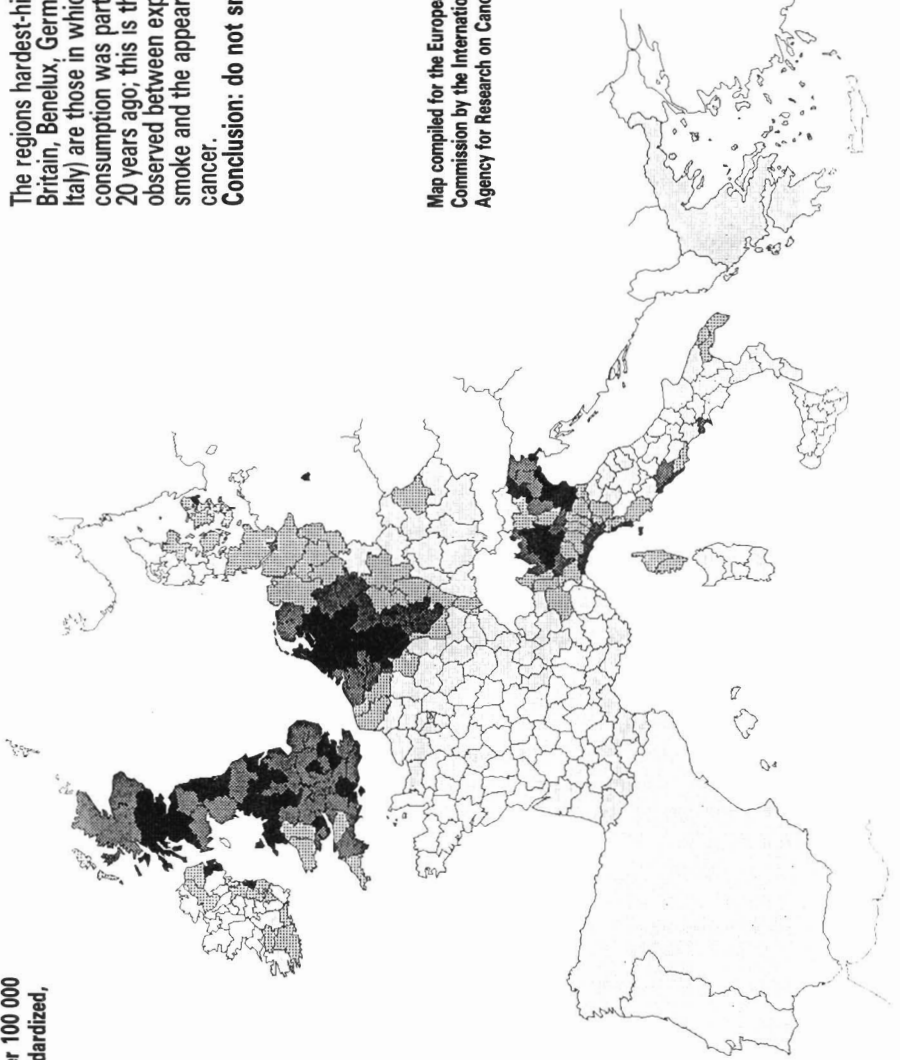
Number of deaths per 100 000 population (age-standardized, 1970s)



The regions hardest-hit today (Great Britain, Benelux, Germany, northern Italy) are those in which tobacco consumption was particularly high 15 or 20 years ago; this is the delay usually observed between exposure to tobacco smoke and the appearance of lung cancer.

Conclusion: do not smoke.

Map compiled for the European Commission by the International Agency for Research on Cancer.



exchanges of experience between the responsible authorities in all member countries, so they can benefit from each other's successes and failures and avoid unnecessary and costly duplications of effort in the development of basic modules for health information and education.

Everybody concerned — private organizations involved in the fight against cancer, health personnel, health ministers, the European Community — has undertaken to engage in specific activities particularly aimed at promoting the European Code against cancer (publication of brochures or special editions of their magazines by the associations and leagues against cancer; organization of open days in anti-cancer centres; display of the European Code in the waiting-rooms of family doctors, in pharmacies and hospitals, etc.).

The first action plan of 1987-89 ended in 1989 with a 'European Year of Information on Cancer', which was a great success and was wound up on 9 January 1990 with a major Eurovision programme.

Under the second action plan for 1990-94, this public awareness campaign will be continued, particularly in the context of the 'European weeks', organized each year in the second week of October.

Ten television programmes on cancer treatment and prevention, financed by 'Europe against cancer', had a wide audience. The principal ones were made available on video cassettes for health education in schools. (Enquiries should be made to the offices of the European Commission in the different Member States.)

Improved training for the health professions

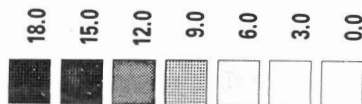
General practitioners and specialists, nurses, dentists and stomatologists have a decisive role to play in the fight against cancer. According to the European Community Committee of Cancer Experts, training programmes for these professions may be improved to meet the needs of cancer prevention and treatment. The aim of the European Community is to assist exchanges between the Member States and to draw up the minimum content of training programmes. This last point is additionally justified by the need to allow the free movement of members of the health professions and their freedom to settle and practice anywhere in a Europe without frontiers.

The European Community also provides financial encouragement for:

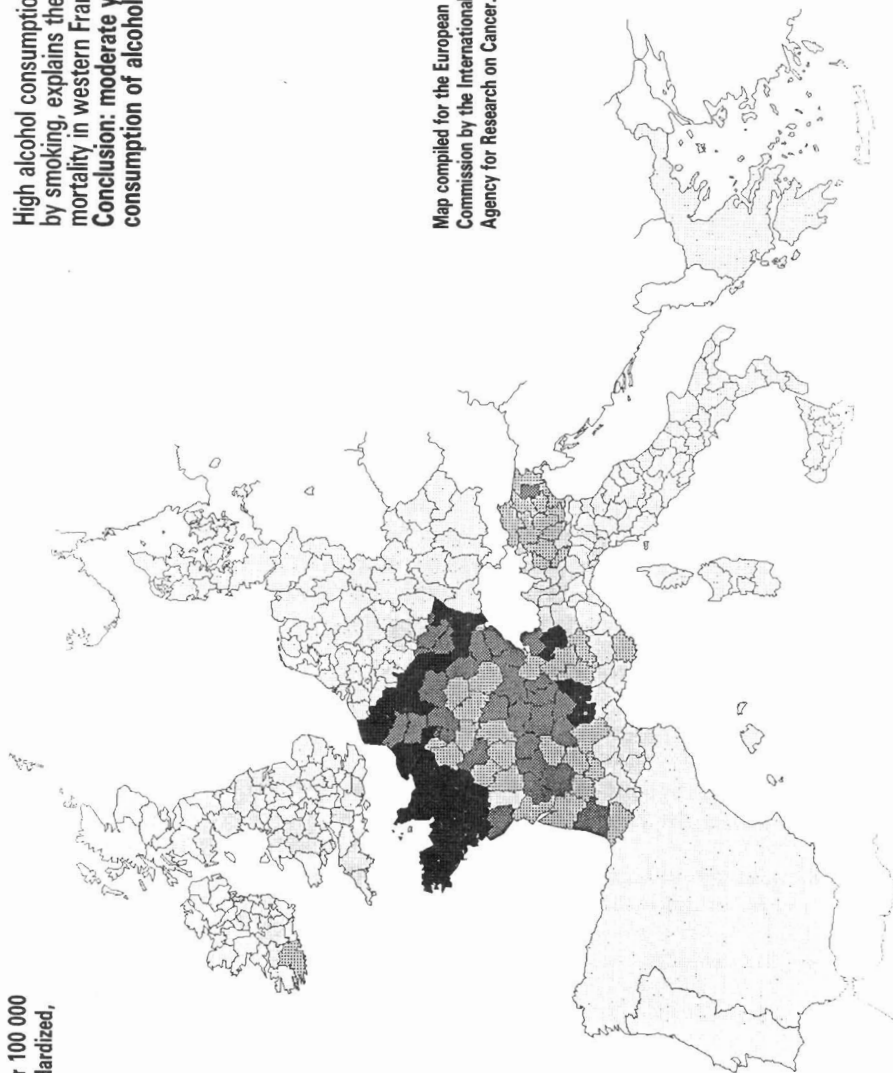
- cancer training for members of the health professions at the centres regarded as the best in Europe (European School of Oncology in Venice, Utrecht Detection Centre, etc.), by means of scholarships;
- training instructors of health personnel, particularly of general medical practitioners, by financing European seminars to bring their knowledge up to date.

Deaths from cancer of the oesophagus in men

Number of deaths per 100 000 population (age-standardized, 1970s)



High alcohol consumption, aggravated by smoking, explains the record of mortality in western France.
Conclusion: moderate your consumption of alcoholic drinks.



Map compiled for the European Commission by the International Agency for Research on Cancer.

Further information can be obtained from the offices of the European Commission in the Member States.

Research: collaboration in order to go further, faster

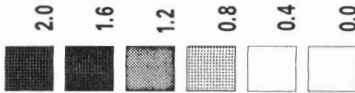
The progress made in medical research has already resulted in continuous improvements in the long-term survival chances of patients with certain cancers. However, the practical achievements of research in Europe may still be improved by better collaboration and coordination.

The pooling of European resources in cooperative projects is as necessary as it is appropriate, in order to achieve a truly European cancer research effort without national frontiers.

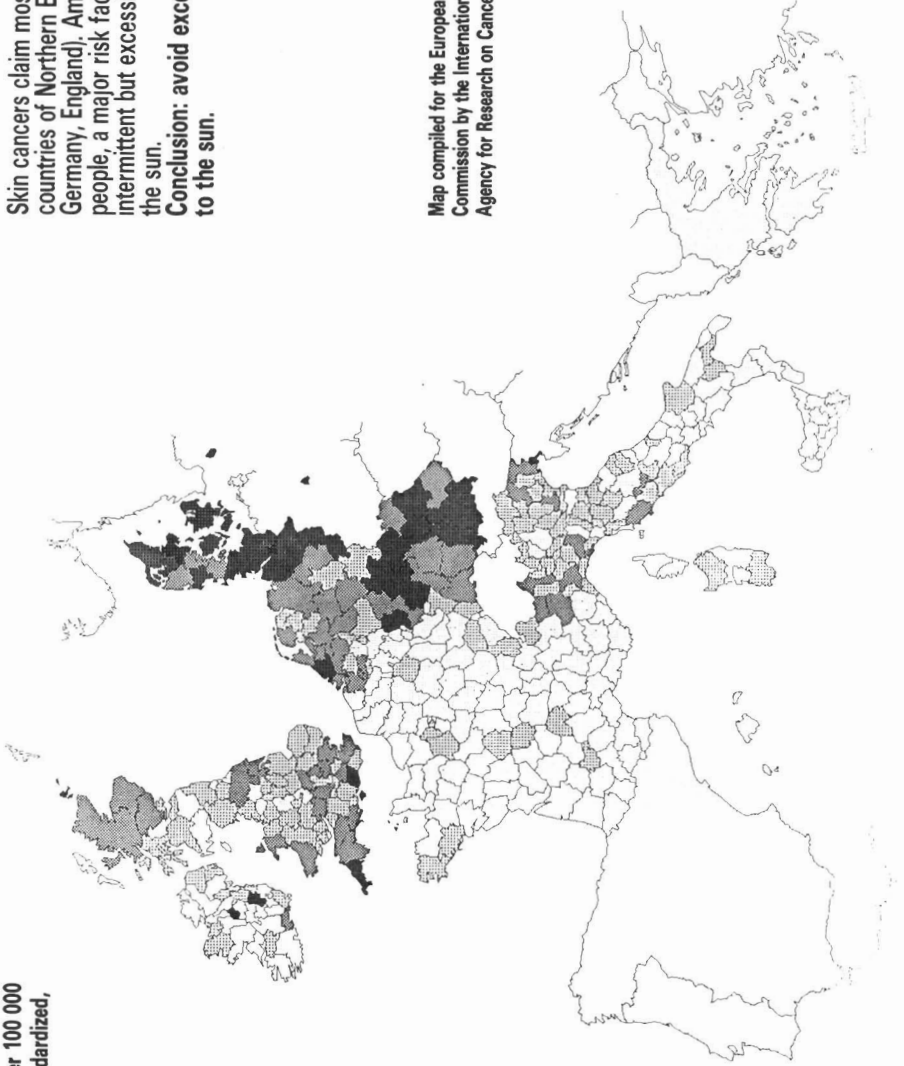
- The European Community encourages the movement of ideas and people by annually granting 50 European fellowships to research workers eager to continue their training in the laboratories of another Community country.
- In addition, the European Community fosters the coordination of research work in order to improve cancer prevention:
 - epidemiological research is being developed on five principal themes: European coordination of medical research on food and cancer; a stepping-up of European research on occupational cancers; the prevention of radiation-induced cancers; continued research into carcinogenic factors in the environment; the implementation of a European programme to investigate passive smoking;
 - with regard to screening and diagnosis, two research areas in particular are being explored in depth: automated tissue analysis and medical scanning.
- The Europe against cancer programme also involves Community research on anti-cancer therapies, and in particular:
 - research into genetic engineering and protein engineering for the production of anti-cancer medicines;
 - studies aimed at reducing the general toxicity of cancer-killing drugs;
 - research to improve the administration of anti-tumour substances;
 - clinical research, particularly within the EORTC (European Organization for Research and Treatment of Cancer);
 - research to develop new methods of radiotherapy.
- Finally, the European Community is aiming for a better coordination of fundamental research. Research in the area of carcinogenic viruses has, in

Deaths from malignant melanomas in men

Number of deaths per 100 000 population (age-standardized, 1970s)



Skin cancers claim most victims in the countries of Northern Europe (Denmark, Germany, England). Among fair-skinned people, a major risk factor is intermittent but excessive exposure to the sun.
Conclusion: avoid excessive exposure to the sun.



Map compiled for the European Commission by the International Agency for Research on Cancer.

effect, revealed the role of certain oncogenes — genes which could be involved in the origin of a cancer. Today more than 20 oncogenes have been recognized and their genetic code identified. In the future, the European Community should participate in research work on the genetic aspects of cancer.



The Europe against cancer programme is now operating in the four key areas: cancer prevention, health information and education, training for the health professions and cancer research.

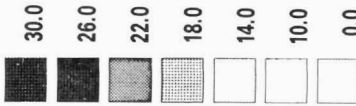
In this fight against illness, suffering and death, the European Community plays a specific role by using its prerogatives in areas such as the establishment of a market without frontiers, the common agricultural policy or the policy on the environment, and by providing 'added value' through synergy, partnership and exchange which are the only means of realizing the full value of national activities.

The success of this European programme requires the mobilization of numerous bodies, in particular the associations and leagues against cancer, the health professions and the media, which are all essential for spreading information among 320 million Europeans and motivating and mobilizing them.

Fifteen per cent lower mortality from cancer by the year 2000. That target brings a hope of life to 150 000 Europeans. Thus, in the area of health, as in others, the European Community can demonstrate the unique value of its 'multiplier effect' ■

Deaths from breast cancer in women

Number of deaths per 100 000 population (age-standardized, 1970s)

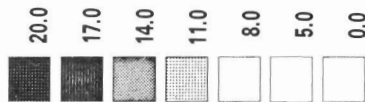


Mortality is particularly high in Northern Europe (Denmark, United Kingdom, Ireland, the Netherlands). Among the reasons given are excessive weight and a diet too rich in animal fats. However, these hypotheses need to be confirmed. Conclusion: avoid being overweight.

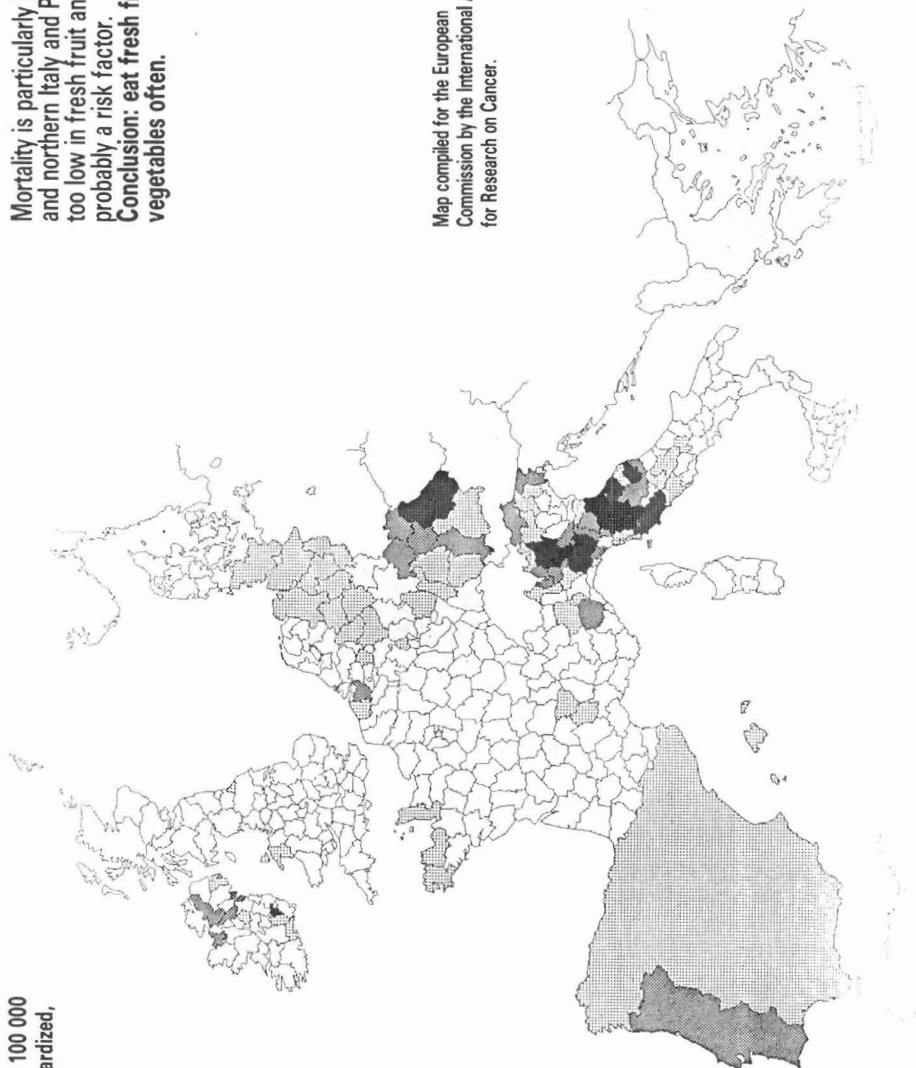
Map compiled for the European Commission by the International Agency for Research on Cancer.

Deaths from stomach cancer in women

Number of deaths per 100 000 population (age-standardized, 1970s)



Mortality is particularly high in central and northern Italy and Portugal. A diet too low in fresh fruit and vegetables is probably a risk factor.
Conclusion: eat fresh fruit and vegetables often.



Map compiled for the European Commission by the International Agency for Research on Cancer.

European Community Committee of Cancer Experts

This Committee is composed of the following individuals:

Professor Maurice Tubiana, President of the Committee, Director of the Institut Gustave Roussy, France.

Professor Norman Bleehen, Vice-President of the Committee, Director of the Medical Research Council, Clinical Oncology and Radiotherapeutics Unit, Cambridge, United Kingdom.

Professor Dr E. Grundmann, Vice-President of the Committee, Director of the Pathologisches Institut der Universität Münster, Germany.

Professor Umberto Veronesi, Vice-President of the Committee, Director-General of the Istituto Nazionale per lo Studio e la Cura dei Tumori, Italy.

Professor Christian de Duve, Nobel Prize, and Professor Thierry Boon, International Institute of Cellular and Molecular Pathology, Belgium.

Professor Carl Schmidt, Director of the Westdeutsches Tumorzentrum, Innere Klinik und Poliklinik der Ruhr Universität, Germany.

Doctor Ole Møller Jensen, Director of the Kræftens Bekæmpelse Cancerregisteret, Denmark.

Professor J. Estapé Rodríguez, Cátedra de Oncología, Hospital Clinic Barcelona, Spain.

Doctor J. Gonzalez Enriquez, Ministerio de Sanidad y Consumo, Spain.

Professor I. Garas, Hellenic Society of Oncology, Greece.

Doctor Michael Moriarty, Consultant in radiotherapy clinical oncology, St Luke's Hospital, Ireland.

Professor Mario Dicato, Head of the Département hématologie-cancérologie, Luxembourg.

Doctor R. Kroes, Director of the Rijksinstituut voor Volksgezondheid en Milieuhygiëne, the Netherlands.

Professor José Conde, Gabinete de Ensino Oncologia, Director of the Instituto Portugues de Oncologia, Universidade Nova de Lisboa, Portugal.

Doctor P. Bourdillon, Senior Medical Officer, Department of Health, Eileen House, London, United Kingdom.

Observers

Professor Jerzy Einhorn, Director of the Stockholm Cancer Centre, Sweden.

Doctor L. Tomatis, Director of the International Agency for Research on Cancer (CIRC/IARC), France.

Doctor Alberto Costa, Secretary-General of the European School of Oncology, Italy.

Doctor L. Dobrössy, Regional Officer for Cancer, WHO Regional Office for Europe, Denmark.

Doctor K. Roos, Assistant Undersecretary of State, Socialdepartementet, Sweden.

Persons considering the European cancer prevention commandments 'very important'

(%)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EC
Considering it 'very important':													
Not to smoke	1988 1990	69 60	68 60	80 75	77 77	77 75	81 76	81 85	75 72	65 63	83 77	78 81	75 74
To moderate consumption of alcoholic drinks	1988 1990	59 63	48 41	70 64	70 59	62 62	49 43	63 65	62 56	50 48	77 71	38 38	57 53
To eat fruit and fresh vegetables frequently	1988 1990	63 66	57 62	69 68	61 59	52 51	59 59	52 67	61 56	61 58	73 67	52 58	56 60
To avoid excessive exposure to the sun	1988 1990	47 56	39 40	60 59	47 41	49 51	58 58	33 37	41 44	37 46	71 61	45 49	44 45
To avoid becoming overweight	1988 1990	51 59	45 42	66 64	55 43	39 36	51 45	43 44	45 38	54 44	67 55	45 50	47 45
Women considering it 'very important':													
To check their breasts regularly	1988 1990	68 54	73 79	60 54	67 65	76 76	77 77	80 80	80 59	68 71	53 57	83 84	72 70
To have a cervical smear regularly	1988 1990	64 54	73 78	55 50	66 66	74 72	76 78	78 77	77 56	70 73	49 46	89 88	71 68

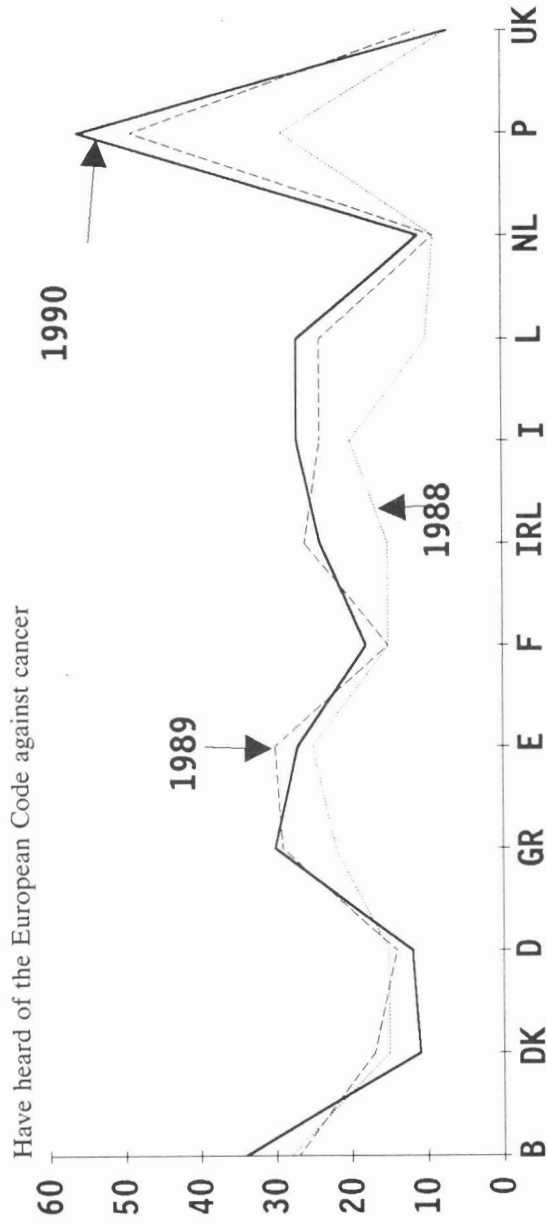
Persons keeping the commandments of the 'European Code against cancer'

(%)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EC
Commandment No 1: Smoking													
1. Non-smokers	1988 1990	56 53	66 65	57 65	62 68	63 66	65 64	67 67	65 73	56 60	75 76	65 69	63 67
2. Smokers who want to stop	1988 1990	28 31	9 8	43 43	28 30	28 28	37 39	45 44	32 33	26 21	24 29	33 39	28 29
Commandment No 2: Alcohol													
Moderating consumption of alcoholic drinks	1988 1990	71 67	60 55	77 74	79 70	87 83	70 72	89 87	86 86	78 72	85 76	73 72	77 73
Commandment No 3: Sun													
Avoiding excessive exposure to the sun	1988 1990	60 60	47 44	66 69	67 57	76 68	69 68	66 63	66 67	53 59	83 71	66 60	64 59
Commandment No 5: Fruit and vegetables													
Eating them every day or almost	1988 1990	78 72	65 63	45 51	71 70	78 73	77 78	86 87	77 76	87 90	69 79	76 77	73 74
Commandment No 6: Excess weight													
Avoiding becoming overweight	1988 1990	61 66	66 69	54 49	78 80	74 64	71 72	71 70	73 67	69 67	72 61	70 70	67 63
Commandment No 9: Cervical smear													
Having a smear test at least every three years	1988 1990	32 41	36 45	39 51	17 19	55 40	18 28	24 33	55 51	28 39	3 12	32 39	29 34
Commandment No 10: Breasts													
Checking breasts regularly	1988 1990	35 26	33 34	33 19	16 17	55 26	28 25	29 26	59 34	37 35	16 24	48 33	37 27

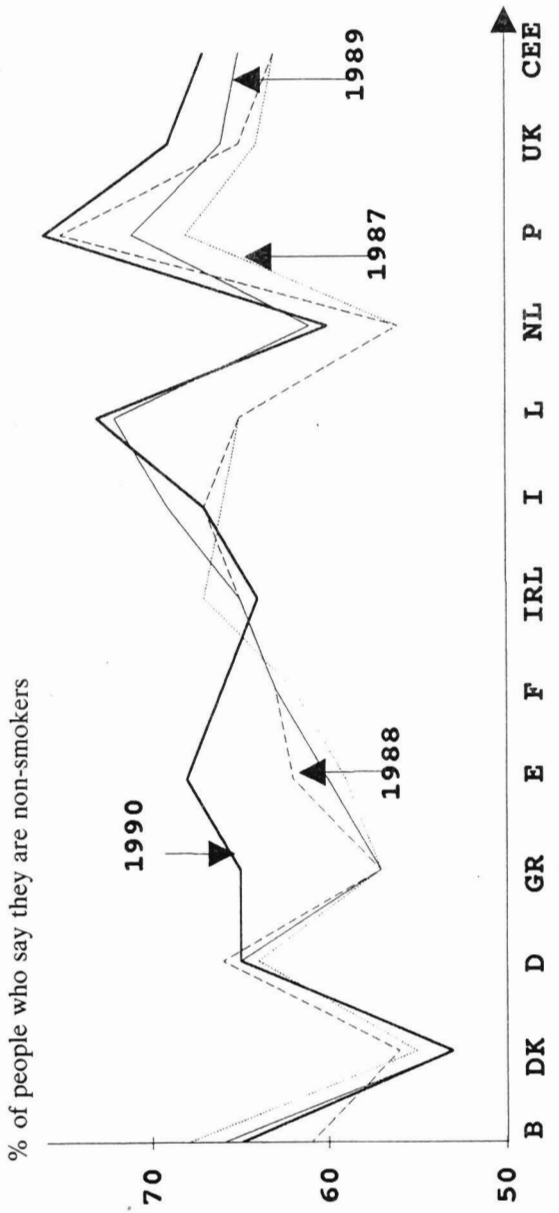
Source: 'Europeans and cancer prevention', surveys carried out by 'European Omnibus Survey' for the Commission of the European Communities. The totals given for the Community (EC) are weighted averages.

Trend in awareness of the European Code against cancer during the European Year of Information on Cancer



The aim of European Year of Information on Cancer was to increase awareness of the European Code against cancer. This objective was achieved in eight of the 12 Member States, most spectacularly in Portugal (Where awareness rose from 29 to 56%). In the Netherlands and the United Kingdom, however, the level of awareness did not change — and it declined slightly in Germany (from 15 to 12%) and in Denmark (from 15 to 11%).

Trend in % of non-smokers during the first action plan 1987-89



Significant progress (4% or more) was recorded in seven of the 12 Member States of the European Community.

Whom to contact in the different countries

There are numerous associations and leagues against cancer. Among those which are members of the European Commission's Committee are the following:

United Kingdom:

Cancer Education Coordination Group, Ulster Cancer Foundation, 40-42 Eglantine Avenue, Belfast BT9 6DX.

UK CCCR, Africa House 1/2, 64-78 Kingsway, London WC2B 6BG.

Imperial Cancer Research Fund, PO Box 123, Lincoln's Inn Fields, London WC2A 3PX.

Cancer Research Campaign, 2 Carlton House Terrace, London SW17 5AR.

Ireland:

Irish Cancer Society, 5 Northumberland Road, Dublin 4.

Summary bibliography

The Europe against cancer programme, proposals by the European Commission, *Official Journal of the European Communities* No C 50, 26.2.1987.

The Europe against cancer programme: report on the implementation of the first action plan 1987-89 (COM(89) 185).

Decision of the Council and representatives of the governments of the Member States meeting in the Council, adopting an action plan 1990-94 in the framework of the Europe against cancer programme (OJ L 137, 30.5.1990).

Europe against cancer programme: outline of an action plan 1990-94 (SEC(89) 648).

These publications and the films mentioned in the document may be obtained by contacting the offices of the European Commission whose addresses are provided overleaf.

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