

UPDATED EDITION 2005

GLOBAL ACTION AGAINST CANCER

NOW!



FACTS AND FIGURES
CAUSES OF CANCER
PREVENTION
EARLY DETECTION
CURE AND CARE
CONTACTS

“ **Statistics are people with the tears wiped away.** ”
Professor Irving Selikoff

ISBN 92 4 159314 8



Think of the people you know. How many of them have had cancer? How many more will get it?



We can save two million lives in our lifetime

Global Action Against Cancer - Updated version.

1.Neoplasms – epidemiology 2.Neoplasms – mortality 3.Neoplasms – prevention and control 4.World health 5.International cooperation I.World Health Organization II.International Union Against Cancer.

ISBN 92 4 159314 8 (WHO)
ISBN 2-9700492-1-X (UICC)

(LC/NLM classification: QZ 200)

© **World Health Organization and International Union Against Cancer, 2005**

All rights reserved.

Publications of the World Health Organization can be obtained from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel: +41 22 791 2476; fax: +41 22 791 4857; email: bookorders@who.int). Requests for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – should be addressed to WHO Press, at the above address (fax: +41 22 791 4806; email: permissions@who.int).

Publications of the International Union Against Cancer can be obtained from the Campaigns & Communications Cluster, 3 rue du Conseil-Général, 1205 Geneva, Switzerland (tel: +41 22 809 1811; fax: +41 22 809 1810). Requests for permission to reproduce or translate UICC publications – whether for sale or for noncommercial distribution – should be addressed to UICC Publications, at the above address (email: permissions@uicc.org).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization and the International Union Against Cancer concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization and the International Union Against Cancer in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization and the International Union Against Cancer to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization and the International Union Against Cancer be liable for damages arising from its use.

Printed in Switzerland
Design: Helena Zanelli Création



Contacts:

World Health Organization
Programme for Cancer Control
Chronic Diseases Prevention and Management
20 Avenue Appia
1211 Geneva 27
Switzerland
Tel: +41 22 791 33 14
Fax: +41 22 791 42 97

International Union Against Cancer
Campaigns & Communications Cluster
3 rue du Conseil-Général
1205 Geneva
Switzerland
Tel: +41 22 809 18 11
Fax: +41 22 809 18 10

Contacts

World Health Organization
Programme for Cancer Control
Chronic Diseases Prevention and Management
20 Avenue Appia
1211 Geneva 27
Switzerland
Tel: +41 22 791 33 14
Fax: +41 22 791 42 97

International Union Against Cancer
Campaigns & Communications Cluster
3 rue du Conseil-Général
1205 Geneva
Switzerland
Tel: +41 22 809 18 11
Fax: +41 22 809 18 10

Further Reading

Curbing the Epidemic: Governments and the Economics of Tobacco Control
World Bank, 1999.

National Cancer Control Programmes: Policies and Managerial Guidelines
2nd edition, Geneva, World Health Organization, 2002.

World Cancer Report
Lyon, International Agency for Research on Cancer, 2003.

**A Community Health Approach to Palliative Care for HIV/AIDS
and Cancer Patients in Sub-Saharan Africa**
Geneva, World Health Organization, 2004.

References available on request

Web sites

World Health Organization:	www.who.int/cancer
WHO Tobacco Free Initiative:	www.who.int/tobacco
International Agency for Research on Cancer:	www.iarc.fr
International Union Against Cancer:	www.uicc.org
UICC GLOBALink Tobacco:	www.globalink.org

Acknowledgements

The following people have provided valuable input to this second edition:

José Julio Divino	UICC	Cecilia Sepúlveda	WHO
Jacques Ferlay	IARC	Eva Steliarova-Foucher	IARC
Isabel Mortara	UICC	Andreas Ullrich	WHO
Paola Pisani	IARC	Maria Villanueva	WHO
Páiraic Réamonn	UICC		

6.7 million
deaths

10.9 million
new cases

24.6 million
people living with cancer*

**GLOBAL ACTION
AGAINST CANCER**

Our knowledge about the prevention and treatment of cancer is increasing, yet the number of new cases grows every year. If the trend continues, 16 million people will discover they have cancer in 2020, two-thirds of them in newly-industrialized and developing countries.

It is time to put current knowledge into action in order to save lives and prevent suffering. This requires concerted action between international organizations, governments, public and private institutions, and individuals.

That action has already begun. We each have an important role to play.

This booklet presents the challenge.

*Figure based on a 5-year prevalence between 1998-2002.

Source: IARC, Globocan 2002

Year 2002: Cancer killed more than

Cancer deaths

Cancer knows no borders. It is the second leading cause of death in developed countries, and is among the three leading causes of death for adults in developing countries.

12.5% of all deaths are caused by cancer. That's more than the percentage of deaths caused by HIV/AIDS, tuberculosis, and malaria put together.

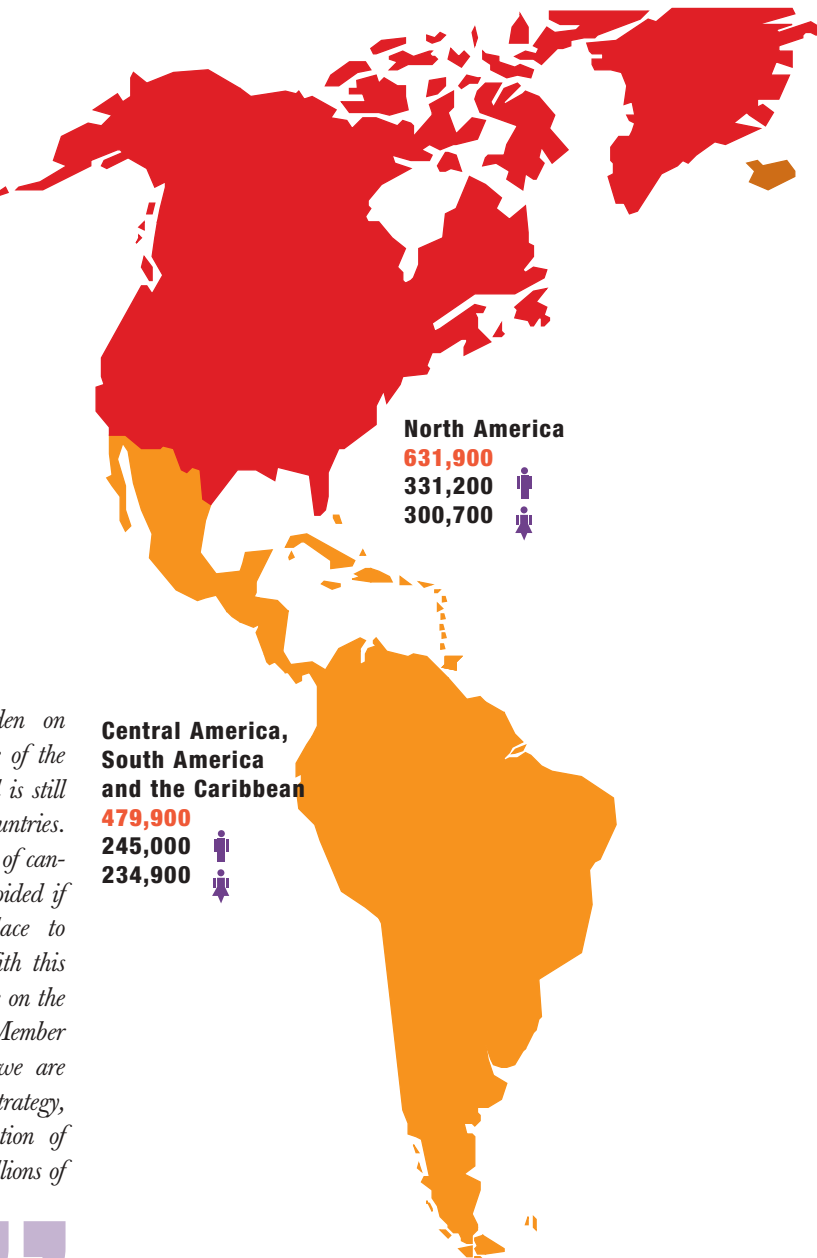
Cancer is a public health problem worldwide. It affects all people: the young and old, the rich and poor, men, women, and children.



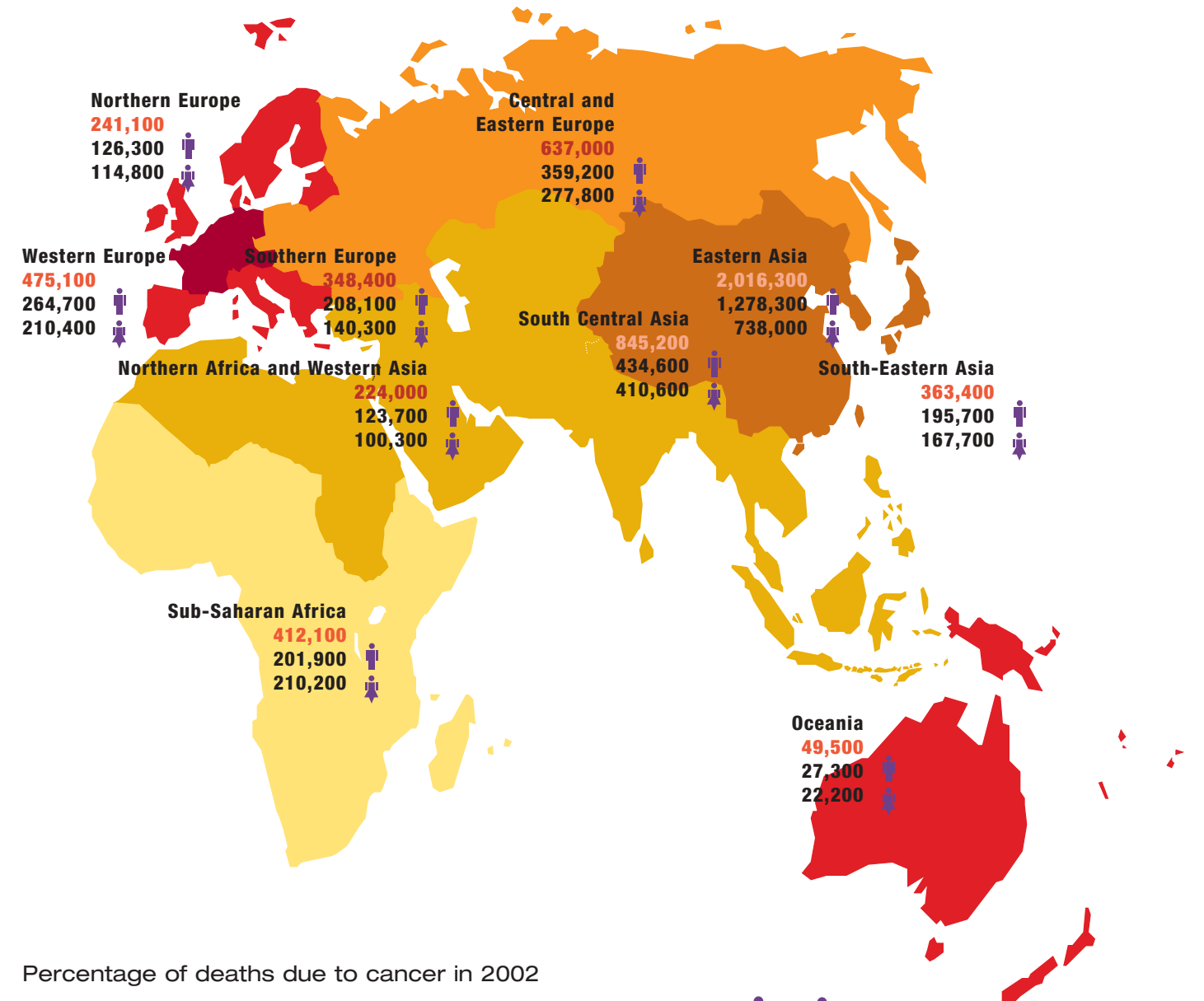
Cancer represents a tremendous burden on patients, families, and societies. It is one of the leading causes of death in the world and is still increasing, particularly in developing countries. Almost seven million people die each year of cancer, and many of these deaths can be avoided if appropriate measures are put in place to prevent, early detect, cure and care. With this goal in sight, cancer is an important issue on the WHO agenda. With the support of Member States and other partners worldwide, we are developing the WHO Cancer Control Strategy, which aims at accelerating the translation of knowledge into action in order to save millions of lives and reduce unnecessary suffering.



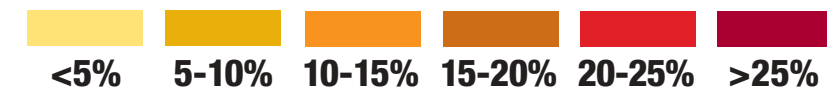
Dr LEE Jong-wook
Director-General, WHO



6.7 million people around the world



Percentage of deaths due to cancer in 2002



Source: IARC, Globocan 2002; WHO 2004

Year 2002: 10.9 million new cases around the world

24.6 million people living with cancer

Types of cancer

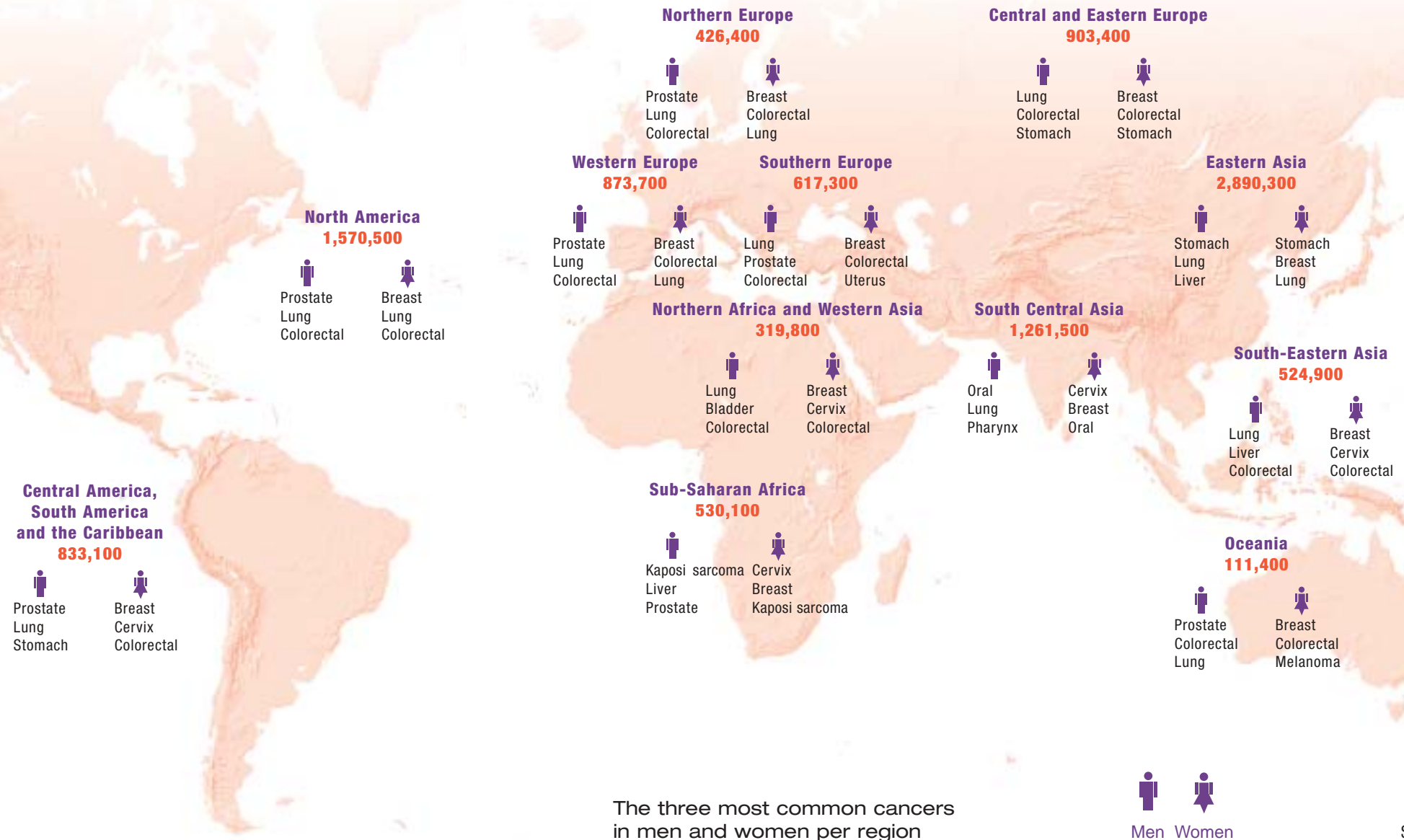
Lung cancer kills more people than any other cancer.

More men than women get cancer of the lung, stomach, throat, and bladder.

Cancers triggered by infections – liver, stomach and cervix cancers – are more prevalent in the developing world.

In richer countries, prostate, breast and colon cancers are more common than in poorer countries.

Cancers that are most often cured are breast, cervix, prostate, colon and skin, if they are diagnosed early.



The three most common cancers in men and women per region

Men Women

Source: IARC, Globocan 2002

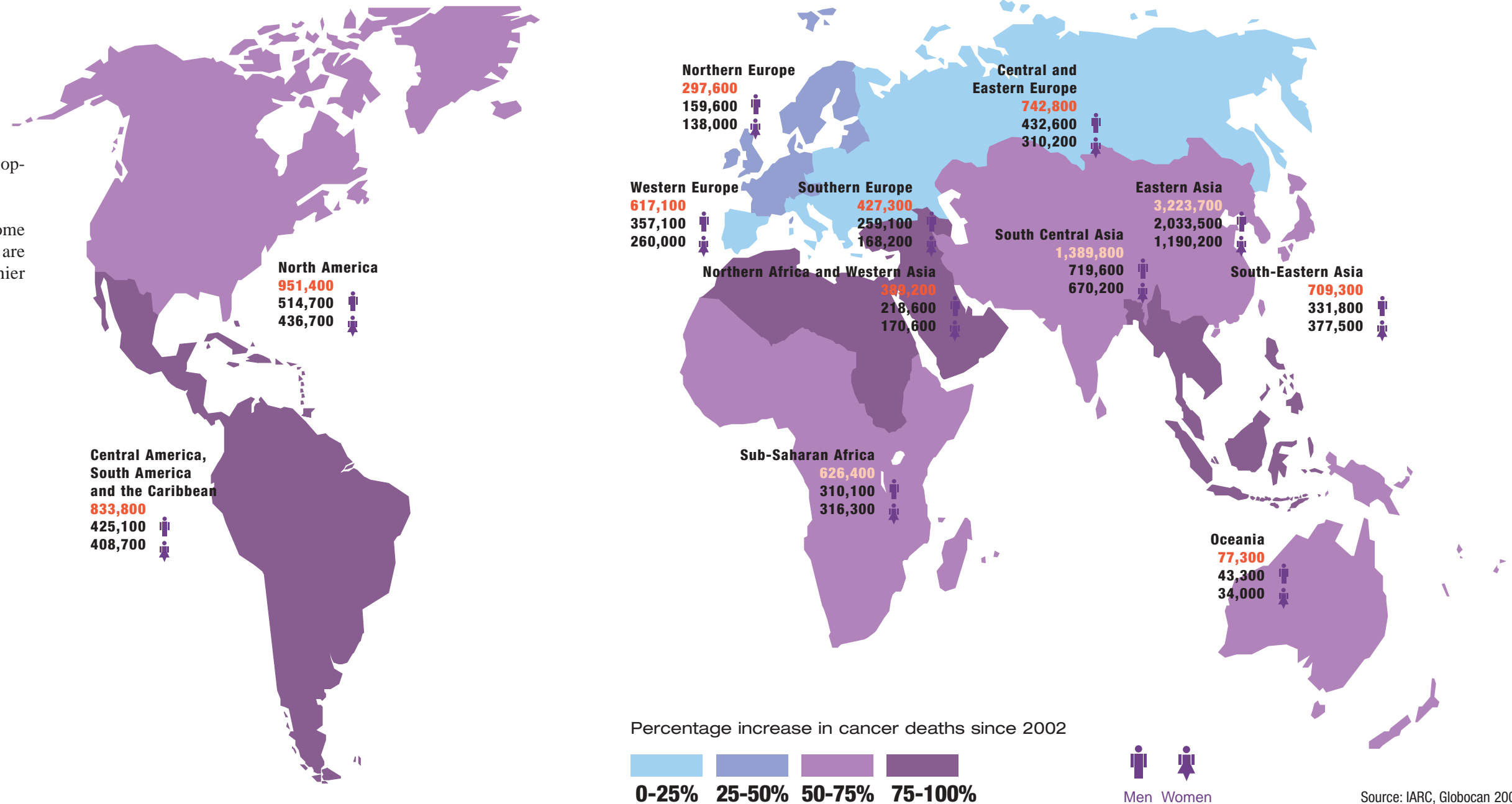
By 2020, cancer could kill

10.3 million people per year unless we act

Trends

The biggest rates of increase are in developing and newly industrialized countries.

The relative increase is smallest in some Western countries where populations are rejecting tobacco and adopting healthier lifestyles.



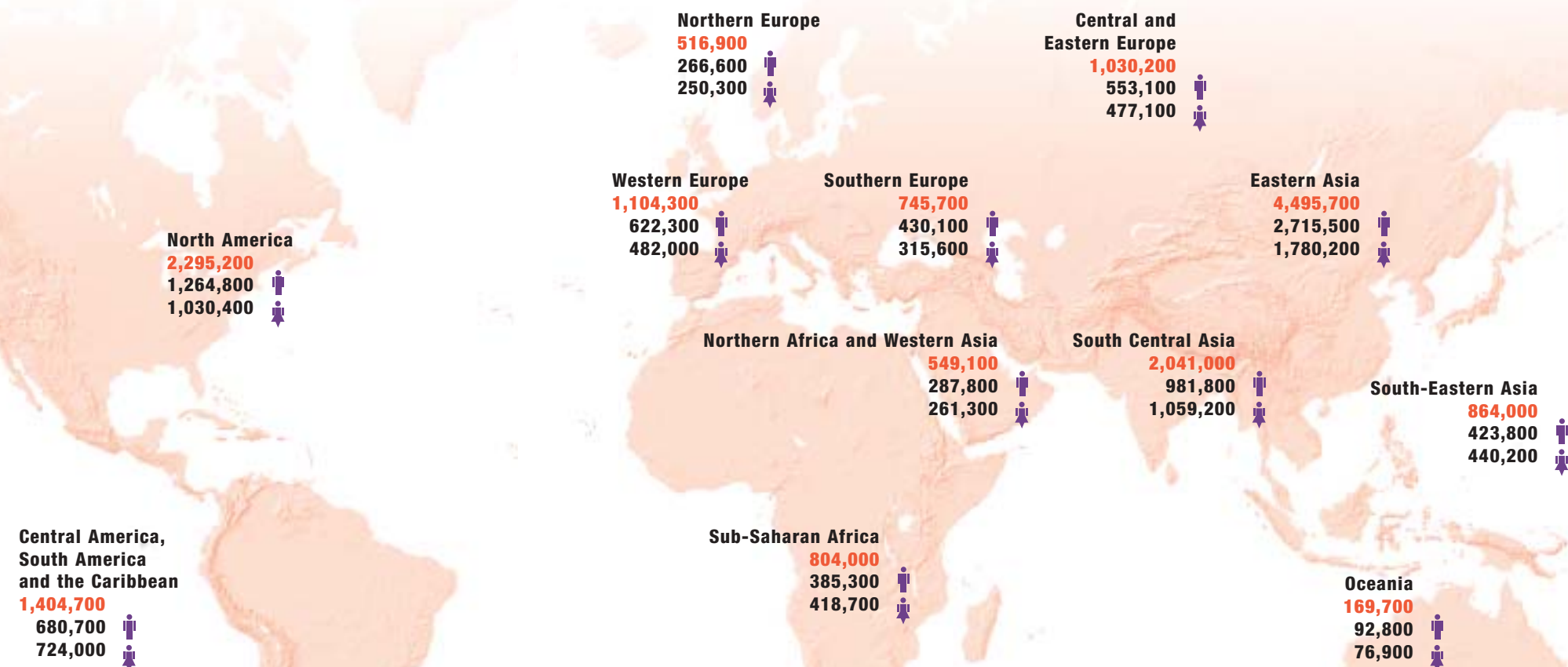
Source: IARC, Globocan 2002

The number of new cases each year could rise from **10.9 million in 2002**

to **16 million in 2020**
nearly a **50% increase**

Trends

A steadily increasing proportion of elderly people in the world will result in approximately a 50% increase in new cancer cases over the next 20 years. If current smoking levels and the adoption of unhealthy lifestyles persist the increase will be even greater.



The estimated number of new cases in men and women per region in 2020.



Source: IARC, Globocan 2002

What will **the future**
picture **be if we act**
NOW?



Cancer is potentially the most preventable and most curable of the major life-threatening diseases facing humankind. By applying existing knowledge and promoting evidence-based actions in cancer control, we will turn this truth into reality for all people everywhere.

Dr John R. Seffrin
President, UICC



We can save
2 million lives
by 2020,
and 6.5 million lives
by 2040.

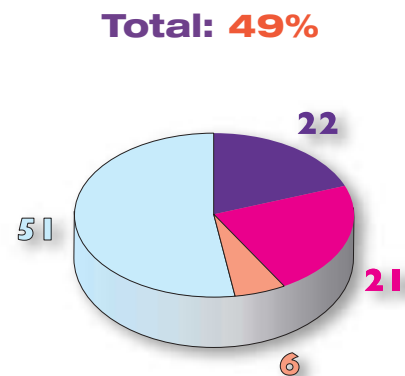
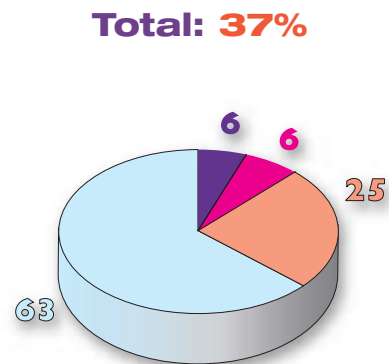
43% of cancer deaths are due to **tobacco, diet and infection.**

These factors were responsible for 4.4 million new cancer cases in 2002



Sub-Saharan Africa

Europe (Northern, Southern and Western)



tobacco
 diet
 infection
 other

From a global perspective, there is strong justification for focusing cancer prevention activities on these three main cancer-causing factors.

Tobacco

Tobacco consumption is the world's most avoidable cause of cancer. In most developed countries, smoking is responsible for up to 30% of all cancer deaths. Worldwide, it is responsible for more than 80% of lung cancer cases in men, and 45% in women.

Tobacco also causes cancer at many other sites including throat, mouth, pancreas, bladder, stomach, liver, and kidney cancers.



Diet

In developed countries, almost as many cancer cases are attributable to an unhealthy diet and an inactive lifestyle as to smoking.

Overweight and obesity are associated with colon, breast, uterus, oesophagus, and kidney cancers.

Excessive alcohol consumption increases the risks of cancers of the oral cavity, pharynx, larynx, oesophagus, liver and breast. For some of these cancers, the risks are even greater if you smoke.

The incidence of stomach cancer has gone down because of reduced intake of salt and improved living conditions.

Infection

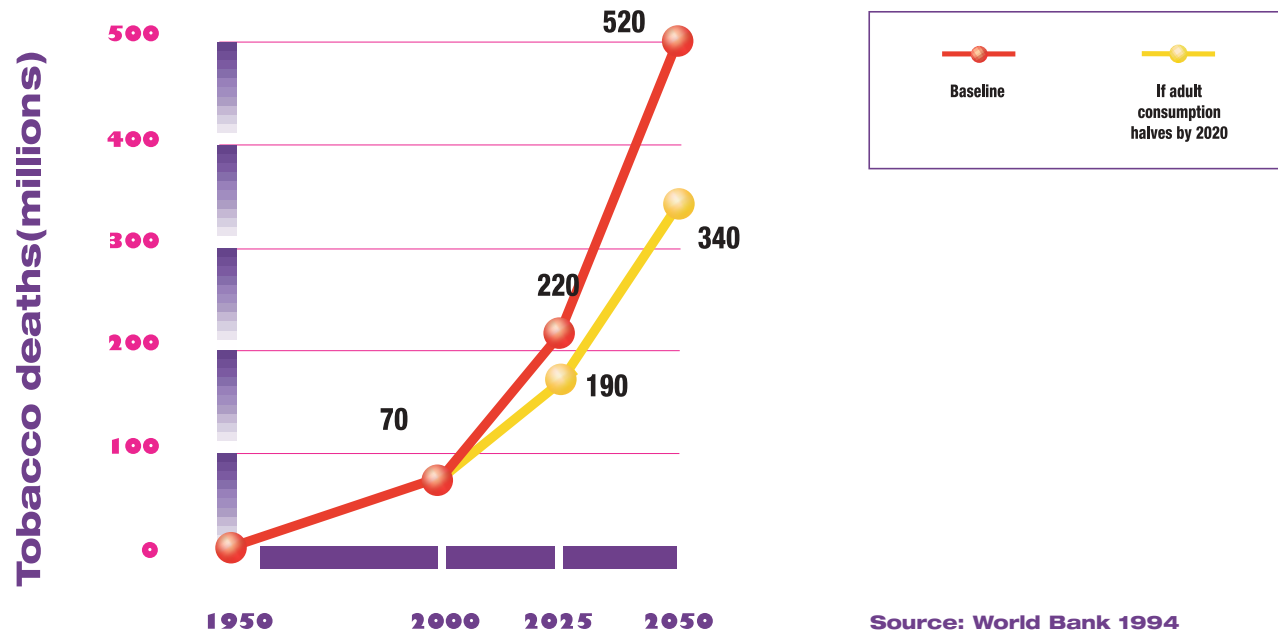
One-fifth of cancers worldwide are due to chronic infections, mainly from hepatitis viruses (liver), papillomaviruses (cervix), *Helicobacter pylori* (stomach), schistosomes (bladder), the liver fluke (bile duct) and human immunodeficiency virus (Kaposi sarcoma and lymphoma).



Source: IARC 2000

Source: WHO, IARC 2003

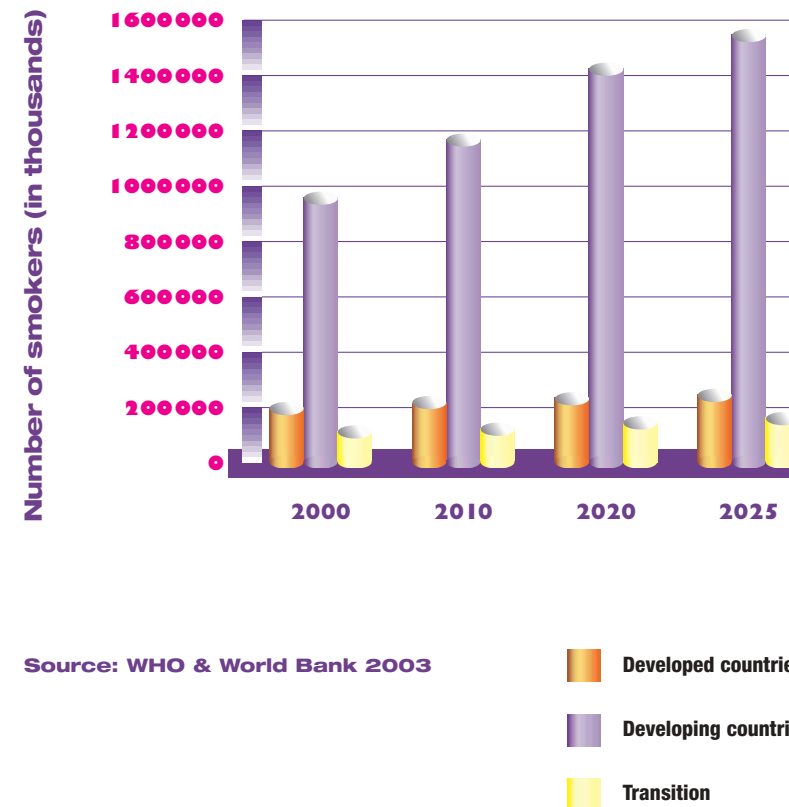
The battle against **tobacco**



“ If current trends persist, about 500 million people alive today will eventually be killed by tobacco, half of them in productive middle age, losing 20 to 25 years of life. ”
World Bank, 1994



The number of smokers is increasing particularly in the developing world.



Make this the **last** generation that smokes

Tobacco use is the most preventable cause of death. Halving tobacco consumption now would prevent 20-30 million people from dying before 2025 and 170-180 million people from dying before 2050 from all tobacco-related diseases including cancer.

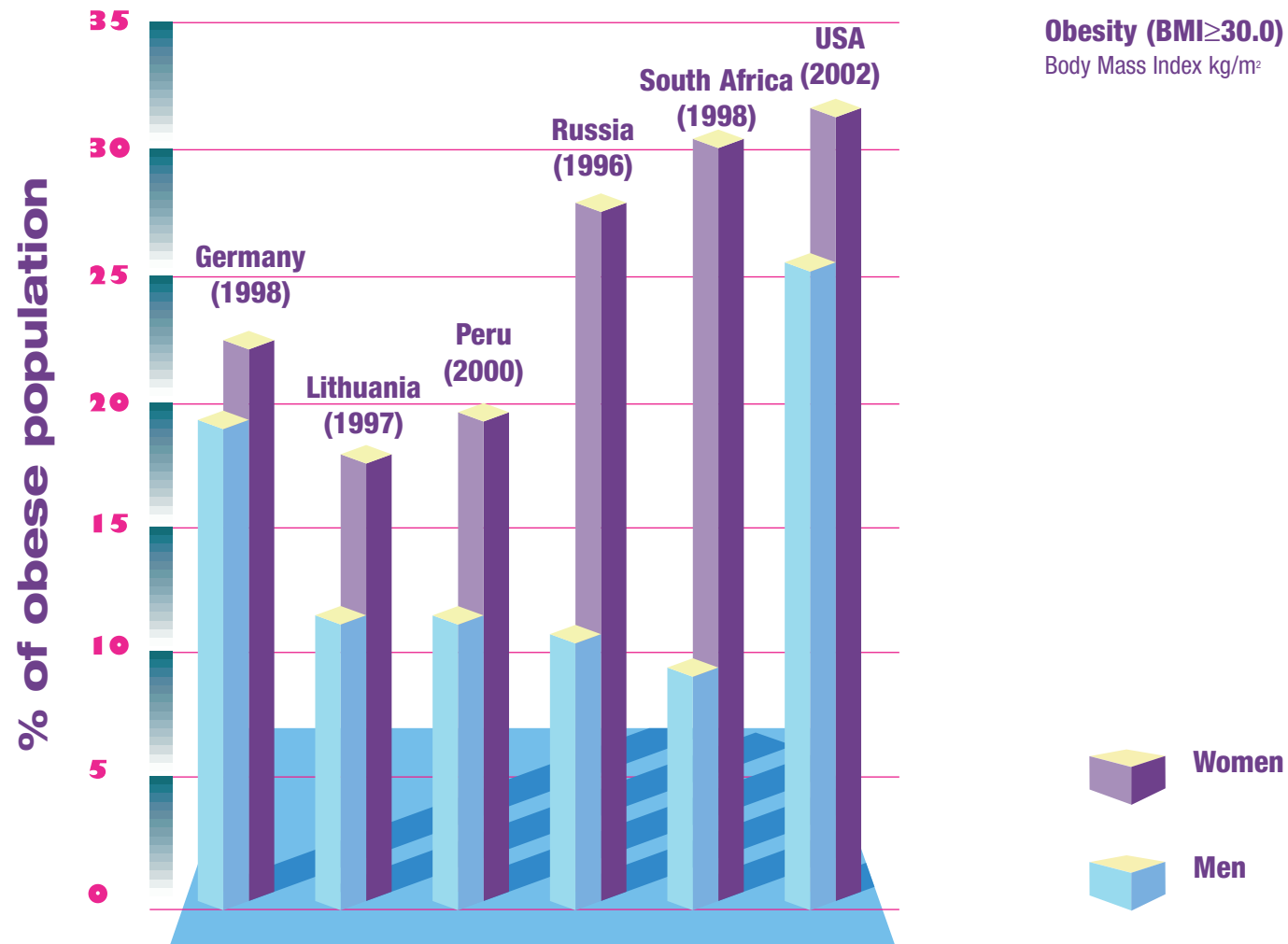
To quit smoking, or even better, to avoid starting to smoke, is the single best thing a person can do for his or her health. For those who do smoke, there are immediate health benefits to be gained from quitting.

Smoking is a public health threat and justifies the involvement of society as a whole in combating it.

Exposure to tobacco smoke (passive smoking) increases the risk of lung cancer by 20% in non-smokers.

The economic cost of tobacco, including treatment of the ill and loss of productivity, outweighs tax revenues derived from tobacco.

In many countries, people are eating **more** and exercising **less**



and there is a potential danger for other countries adopting this lifestyle

Source: WHO Global Data Base on BMI, 2005

Promoting a **healthy diet** and an **active lifestyle**



In high income countries, people are eating more and exercising less – with resulting increases in body weight. In many developed countries, as much as half of the adult population may be overweight and more than 25% obese.

Societies reliant on salted and pickled food have higher incidences of gastric cancers.

Through diet and exercise, we can prevent up to a third of cancer cases. Physical activity, avoidance of overweight and frequent daily intake of fresh fruits and vegetables reduce the risk of breast, colon, oral cavity, lung, cervix, and other cancers.



Preventing cancers caused by infection...



UTCC

Chronic infection with Hepatitis B virus (HBV) increases the risk of liver cancer at least 40-fold. In the Gambia, where infection with this virus is endemic, a programme is underway to vaccinate children against HBV.* Surveys of the first 60,000 children vaccinated between 1986 and 1990 have already shown that 90 to 95% of chronic HBV infection can be prevented.** In the years to come researchers will be watching these children to see whether the expected decrease in liver cancer also results.

The sexually-transmitted human papillomavirus (HPV) can increase the risk of cervical cancer 100-fold. Vaccines against HPV are being developed and tested. Early results look promising.

Prevention of HIV infection will also reduce the incidence of related cancers such as Kaposi sarcoma and lymphoma.

by preventing the infection

*Source: IARC 2004
**Source: Viviani S. et al., 1999

Early detection can save lives



UTCC

The chances of surviving the onset of some common cancers depend largely on how early they are detected and how well they are treated. Early detection is based on the observation that treatment is more effective when cancer is detected early. It includes awareness of early signs and symptoms of cancer (e.g. lumps, sores, bleeding), and screening. Screening is the mass testing of people who appear to be healthy. Pap test for cervical cancer is the screening method that has substantially checked the mortality rates in most developed countries and the programmes in some middle-income countries using Pap tests are working.

In many developing countries, where these are not feasible, several other low technology approaches are being studied and look promising.

The success of public health programmes in detecting cancer early depends on the allocation of resources, availability of qualified specialists, and access to follow-up treatment.

“

In Guatemalan culture, it is taboo to speak about cervical cancer, and there is little to no education about the disease. Husbands are reluctant to bring their wives to doctors for screening or treatment. And often, when they do, it is too late. Today, midwives, nurses and social workers are succeeding in breaking taboos, establishing a system of trust. With the husbands' approval, we accompany the women from the home to the doctor so that they receive the care they need.

Magdalena Tepeu, Midwife, PIENSA
San Juan Sacatepequez, Guatemala



The best treatment for all

In high-income countries the **5-year survival rate is between 50 to 60%**

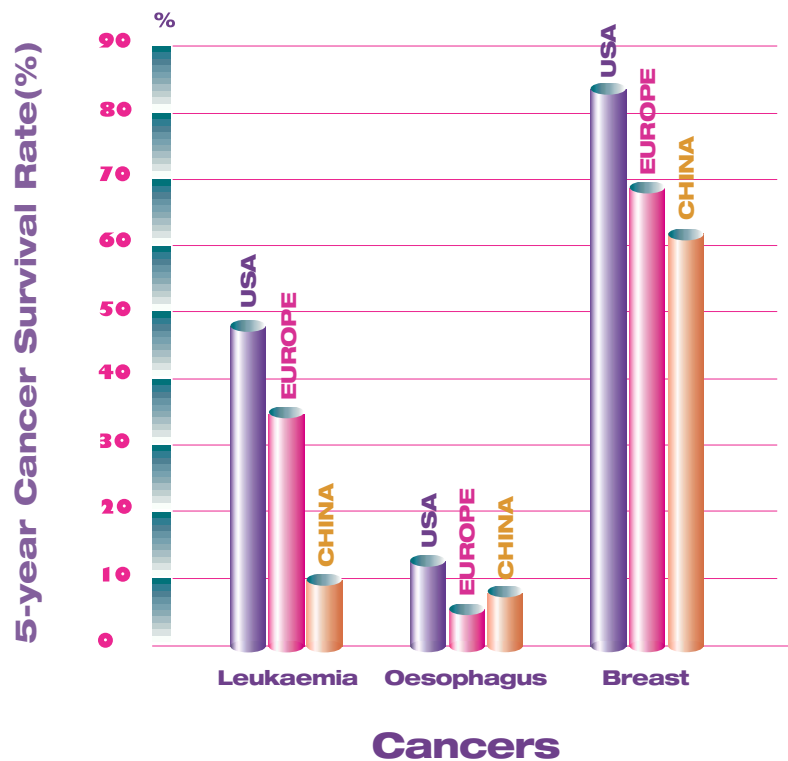
Cancer also affects children

The world average is between 30 to 40% **Survival strategies**

Effective treatment exists for many cancers. Optimal treatment combined with early detection leads to a high rate of cure for cancers of the cervix, breast, oral cavity and colon.

For some cancer sites such as the oesophagus, treatment has limited effectiveness regardless of country. However, there are significant inequalities between countries treating the more curable cancers such as breast and leukaemia.

The success of public health systems in treating potentially curable cancers depends on the appropriate allocation of resources and equal access to good quality care and information for all cancer patients.



Source: IARC 1998



Survival outcomes vary dramatically throughout the world – not just between countries, not just between cities, but even between institutions within the same city. Wide variation in access to quality cancer care is a major cause of these discrepancies.



Dr Ketayun A. Dinshaw
Director, Tata Memorial Centre
Mumbai, India



WHO P.Vinot

Each year, more than 160,000 children are diagnosed with cancer, and it is estimated that 90,000 will eventually die of cancer.

Although childhood cancers represent a small percentage of all cancers, most of them can be cured provided prompt and essential treatment is accessible. However, as 80% of children with cancer live in developing countries where effective treatment is not available, one in two children diagnosed with cancer will die.

Universal access to high-quality care and support, together with a commitment to allocate resources for health education must become a priority. A coordinated strategy by the global cancer control community – one that combines innovative science and sound public health policies – can save a large proportion of the 90,000 young lives lost every year. The time to act is now.



The PINDA programme (National Childhood Programme of Antineoplastic Drugs) was initiated in 1988 as part of the National Cancer Control Programme. Initially, it treated leukaemias, lymphomas and some solid tumors, and provided psychosocial support. Later on it included all cancers, as well as a Bone Marrow Transplant Programme. Chile now has a National Pediatric Oncology Programme where 400 new cases (that is 85% of all childhood cancers) are given free treatment each year. Thanks to this programme, over 4,000 patients have received the full treatment and more than 2,600 have been cured.

Dr Myriam Campbell, Pediatric Hematology
Hospital Roberto del Río, Santiago
National Coordinator PINDA, Chile



Source: IARC, Globocan 2002

Today, **24.6** million people
are living with **cancer**

Improving the quality of life by meeting patient needs

Improving the quality of life of patients living with cancer and dying from cancer is an urgent humanitarian need. More people are diagnosed with cancer, and need adequate care. Many of them, particularly in less developed countries present in very late stages. For all of them the best type of care is palliative care, that is the physical, psychosocial, and spiritual support that can considerably improve their quality of life and that of their families by relieving unnecessary suffering.

Palliative care is not only end of life care, but is part of the continuum of care from the time cancer is diagnosed throughout the course of the disease, alongside treatment. It becomes more intensive towards the end of life as treatment interventions become less effective. Palliative care also goes beyond death, and includes bereavement care for families.

Uganda: Personal story

A young Ugandan woman had severe pain because she was in the last stages of a terminal illness. She had been unable to sleep because of severe pain for more than three months before she heard of Hospice Africa Uganda. She was given palliative care including oral morphine to control her pain. Although this young woman died eight months later, she died in peace and without pain. As she was reaching the end of her life, she asked her hospice nurse to pass on her message:



Please thank all. Because of your help I am pain free and able to make provisions for my family after my death.

Source: Hospice Africa Uganda

and **6.7** million are dying
of cancer every year

Improving health systems as a part of the concerted action against cancer

Positive results for chronic diseases, such as cancer, can only be achieved when patients, families, societies, and health care teams join their efforts in an organized and motivated way.

Health systems need to be adapted to meet the needs of the healthy and the sick by developing comprehensive cancer control programmes that seek to prevent, detect early cure and care.

“

The International Narcotics Control Board (INCB) continues to be concerned about the low consumption of opioid analgesics for the treatment of moderate to severe pain in many countries. The Board encourages Governments that have not yet done so to examine the extent to which their health-care systems and laws and regulations permit the use of opioids for medical purposes, and to develop plans of action, with a view to facilitating the supply and availability of narcotic drugs for all appropriate indications.



Mr Koli Kouame, Secretary
International Narcotics
Control Board

”

Global action against cancer

We know the facts. The inexorable rise of a largely avoidable disease is exacting an unacceptable human and social cost in every country. Every year almost 7 million people die of cancer worldwide.

We know what can be done. We can save 2 million lives by 2020. A great deal has already been done but it's not enough.

The World Health Organization and the International Union Against Cancer are working together to address the cancer situation at a global level and to promote concerted action against cancer.

The challenge is clear and many possible solutions - prevention, early detection, cure and care - are well known to us. So why haven't we achieved greater success in reversing the trends? Perhaps partly because cancer is only one of the many challenges to

health - people around the world are also dealing with other diseases, war, famine and political instability. Partly because cancer is a complex disease with many forms. There is no one answer. There is no one solution.

Each individual has a role to play. Health care professionals, patients, survivors, policy makers, journalists, researchers and donors can each contribute to the global effort against cancer. The strategies are available and the tools ready - the science, the legislative frameworks, the programmes and an enormous body of information on one of the world's most studied diseases.

We've tried working alone, and we have had limited success. Now is the time for a new approach - all sectors, public and private, working together to achieve a common goal - the control of cancer.