



European Union action against cancer. Colorectal cancer screening: current developments, lessons learnt and future plans

DG SANTE
Health Programme and Diseases
European Commission

4th European Colorectal Cancer Days
Brno, 29th May 2015

Aim & content



- There were just over **3.4 million new cases of cancer** (excluding non-melanoma skin cancers) in Europe in 2012,
- **53%** (1.8 million) occurring in men and **47%** (1.6 million) in women.
- The most common cancer sites were:
 - breast cancer (464,000 cases, 13.5% of all cancer cases),
 - colorectal cancer (447,000, 13.0%),**
 - prostate cancer (417,000, 12.1%)
 - and lung cancer (410,000, 11.9%).These four cancers represented half (50.5%) of the estimated overall burden of cancer in Europe in 2012.
- The most common primary sites in men were prostate (22.8% of the total), lung (291,000, 15.9%), **colorectal (242,000, 13.2%)** and bladder (118,000, 6.5%).
- In women, breast cancer was by far the most frequently diagnosed neoplasm (28.8% of the total), followed by **colorectal (205,000, 12.7%),** lung (119,000, 7.4%) and corpus uteri (99,000, 6.1%) cancers.

Aim & content



- The estimated total number of cancer deaths in Europe in 2012 was 1.75 million, of which 56% (976,000) were in men and 44% (779,000) in women.
- Lung cancer, with an estimated 353,000 deaths (one fifth of the total) was the most frequent cause of death from cancer in Europe in 2012, followed by **colorectal cancer (almost 215,000 deaths, 12.2%)**, breast cancer (131,000, 7.5%) and stomach cancer (107,000, 6.1%).
- Lung cancer continued to be the most common cause of death from cancer in men (254,000, 26.1%) followed by **colorectal (113,000, 11.6%)** and prostate (92,000, 9.5%) cancers.
- Breast cancer was the leading cause of death in women (131,000, 16.8%), followed by **colorectal (102,000, 13.0%)** and lung (almost 100,000 deaths, 12.7%) cancers.

Source: Cancer incidence and mortality patterns in Europe: Estimates for 40 countries in 2012 – IARC – European Journal of Cancer, February 2013

<http://www.sciencedirect.com/science/article/pii/S0959804913000075>



At the incidence rates prevailing nowadays in the European Union, it would be expected that 1 in 3 men and 1 in 4 women would be directly affected by cancer in the first 75 years of life.

Europe is currently characterised by worrying inequalities in cancer control and care, existing within, as well as between, Member States.

For example, the risk of dying from cervical cancer is five times higher in the worst performing Member State than in the best.



The first ever study to evaluate the cost of cancer in Europe has found that the disease cost €126 billion in 2009

- **The calculation included** the cost of healthcare for cancer (including the cost of drugs), the cost of productivity losses (due to premature death, and people being unable to work due to illness), and the cost of informal care from friends and relatives.
- Around two-fifths (€51 billion) of this cost was incurred by healthcare systems, with the rest incurred by patients' families, friends, and society overall. Friends and relatives of people with cancer were estimated to have provided 3 billion hours of unpaid care overall.
- The results, published in the journal **Lancet Oncology**, reveal substantial disparities between different countries in the EU in spending on healthcare and drugs for cancer.
- The researchers also examined the different contribution of four cancers – **breast cancer, bowel cancer, lung cancer and prostate cancer** – which in the EU contribute to around half of all new cancer diagnoses and deaths. **Lung cancer had the highest overall cost** at €18.8 billion and was also responsible for the biggest loss of productivity. **Healthcare costs were highest for breast cancer** at €6.7 billion, largely due to a high rates of spending on drugs for this illness.



The first ever study to evaluate the cost of cancer in Europe has found that the disease cost €126 billion in 2009

- The researchers point out that **these estimates are conservative**, as some categories of healthcare costs, such as screening programmes, were not included due to the inability to obtain these data for all countries under study.
- Previously, the same researchers estimated the economic burden of **heart disease and stroke**. While the cost of **cardiovascular disease** in the EU is higher than that for cancer (€195 billion versus €126 billion), the higher number of cancer-related deaths in people of working age means the cost of productivity losses due to premature death was nearly twice as high for cancer as that for heart disease (€43 billion versus €27 billion).
- The group has also estimated the total economic cost for **dementia** for 15 European countries (those that were members of the EU before 2004), arriving at a figure of €189 billion. For the same 15 countries, the economic burden of cancer is €117 billion.

Source: *Economic burden of cancer across the European Union: a population-based cost analysis– The Lancet Oncology, November 2013*
[http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045\(13\)70442-X/abstract](http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(13)70442-X/abstract)



The European Commission has 30 years of history in the fight against cancer

- Since 1985, cancer has been a priority issue for EU public health policy. In 1985, at the European Council in Milan, the 12 Heads of State of the countries of the European Community decided to launch **the first "Europe Against Cancer" programme** which became operational for the period 1987-1989 and the Second for the period 1990-1994.
- Next 15th September 2015 the European Commission and the Luxembourgish Presidency of the Council will commemorate 30 years of the EU public health policy.
- These plans strongly stimulated the adoption of the first European Code Against Cancer (1987) and the first significant Directives against smoking (1992), marketing and use of certain dangerous substances and preparations (1989), maximum levels for pesticide residues in and on certain products (1990) and exposure to carcinogens at work (1990).



The European Commission has 30 years of history in the fight against cancer

The fight against Cancer was also one of the main objectives in the following European Union Health Programmes (1966-2003, 2004-2007 and 2008-2013) where cancer activities were placed in a broad public health framework permitting to develop important initiatives as:

- **the European Network of Cancer Registries (ENCR)**
- **the EUROCARE (Europe Cancer REgistry-based study on survival and care of cancer patients)**
- and, very specially, a major contribution to the support and adoption of the **Council Recommendation of 2 December 2003 on Cancer Screening.**

Aim & content



As a result of the first European plan, **the European Code Against Cancer** was originally drawn-up and the First version endorsed by the European Commission high-level Committee of Cancer Experts in 1987. The 4th version has been launched in October 2014.

The European Code is a cancer specific **prevention tool**, based on scientific evidence, which provides advice to citizens on how to prevent cancer, around **two** very clear **messages**:

- ❖ **Certain cancers may be avoided – and health in general can be improved – by adopting healthier lifestyles.**
- ❖ **Cancers may be cured, or the prospects of cure greatly increased, if they are detected early.**

The EU Health Programme supports the **fourth** version **of the European Code Against Cancer** through administrative agreements with the International Agency for Research on Cancer.



The Commission coordinates EU action to address the risk factors of cancer

- A horizontal approach on the basis of **tackling major health determinants** is essential to curb the increasing burden of cancer throughout the European Union. Cancer is caused by many factors and therefore its prevention shall address on equal footing the lifestyle, occupational and environmental causes.
- It has been estimated that **around one third of all cancers could be prevented by modifying or avoiding key risk factors** such as smoking, being overweight, low fruit and vegetable intake, physical inactivity and alcohol consumption.
- **Health promotion on the basis of major health determinants has been a longstanding priority for the European Commission**, and has included strategies for nutrition, overweight and obesity-related health issues, and support for alcohol-related harm.
- The Commission has also adopted an **ambitious tobacco control policy** aimed at discouraging children and young people from taking up smoking, supporting smoking cessation and protecting all citizens against exposure to second-hand smoke, taking into account the need to tailor health promotion to specific population and target groups.
- It will be important to make the **new Tobacco Products Directive** fully operational by ensuring full use of its delegated and implementing powers as well as supporting its implementation by Member States in order to reduce smoking throughout the EU and contributing to reduce the incidence of cancer.



The Commission coordinates EU action to address the risk factors of cancer

- Other key determinants are **occupational and environmental factors**, such as exposure to carcinogenic and mutagenic substances, and indoor and outdoor air quality.
- In the occupational field, the evaluation of the EU Health and Safety Strategy 2007-2012 showed that it achieved relevant goals and identified the need to continue to focus in **prevention of occupational diseases, cancer being of major importance**, in the framework of coordinated actions with other EU Health and Environment Strategies. For that purpose, the Commission has adopted a new EU Strategic Framework on Health and Safety at Work 2014-2020 .
- Moreover, **Directive 2004/37/EC of the European Parliament and of the Council, of 29 April 2004, on the protection of workers from the risks related to exposure to carcinogens or mutagens at work** sets out a number of preventive measures to eliminate or minimise work-related exposures to chemical carcinogens and mutagens.
- In addition, the **list of substances classified as carcinogens or mutagens is being updated** in line with scientific evidence in Part 3 of Annex VI to Regulation No 1272/2008 (CLP) on classification, labelling and packaging of substances and mixtures .



The Commission supports the development of cancer screening programmes in the EU

- In December 2003, **the Council adopted a Recommendation on cancer screening**, which sets out principles of best practice in the early detection of cancer, and invites all Member States to take common action to implement national population-based screening programmes for breast, cervical and colorectal cancer, with appropriate quality assurance at all levels.
- In 2008, the Commission adopted its **First Report on the Implementation of the Council Recommendation**. The Report found that much has been done to attain high standards of screening practices for breast, cervical and colorectal cancer across the EU.
- However, **the volume of screening examinations in the EU (2003-2008) was less than half of the minimum annual number of examinations that would be expected** if the screening tests specified in the Council Recommendation were available to all EU citizens of appropriate age (approximately 125 million examinations per year).



The Commission supports the development of cancer screening programmes in the EU

- Based on current projections, it has been a substantial improvement in screening coverage in the EU in the last years. **Over 500 million screening examinations for breast, cervical and/or colorectal cancer will be performed in publicly mandated programmes in the EU** alone between 2010 and 2020.
- First **data from the European health interview survey (EHIS) Wave I** on breast, cervical and colorectal cancer screening were published in December 2010. According to this data the percentage of women who have ever undergone a mammography, aged between 50 and 69, among the countries studied, France has the highest proportion (92.9 %), followed by Spain (92.3 %), Austria and Germany (90 %); Bulgaria (19.5%) and Romania (13.5%) having the lowest.
- For the purpose of mapping cancer services delivering screening and care across European countries, the European Commission Joint Research Centre (JRC) launched a survey in 2012 on breast cancer services in European countries.
- According to the results of this survey, **22 countries hold screening programmes for breast cancer**, among which 21 are organised according to the definitions given in the guidelines. **15 out of 25 countries hold screening programmes for colorectal cancer**, and **19 out of 25 countries hold screening programmes for cervical cancer**.



The Commission supports the development of cancer screening programmes in the EU

- To assist Member States with the implementation of screening programmes, the Commission has produced **European Guidelines for quality assurance for breast, cervical and colorectal cancer screening** as benchmarks on how to go about screening.
- The adoption of European guidelines on best practice was identified in the Recommendation as **the most important activity to implement screening programmes in order to facilitate the further development of best practice for high quality cancer screening programmes on a national and, where appropriate, at regional level.**
- In **2010** the European Commission in cooperation with IARC produced the **First edition of the European Guidelines for Quality Assurance in Colorectal Cancer Screening and Diagnosis**. The EU Guidelines on colorectal cancer screening aim to raise quality standards by providing guiding principles and evidence-based recommendations on quality assurance which should be followed when implementing colorectal screening programmes in the EU Member States. They cover the entire screening process - from invitation and organisation, through to diagnosis and management of lesions detected. They focus on elements essential to screening, but also include principles which are equally important in diagnosis: training, multidisciplinary teamwork, monitoring and evaluation, cost-effectiveness, minimising adverse effects, and timeliness of further investigations.



The European Commission initiative on Breast Cancer

Breast cancer is currently the most frequent cancer and the most frequent cause of cancer induced deaths in women in Europe. Systematic early detection through screening, effective diagnostic pathways and optimal treatment have the ability to substantially lower current breast cancer mortality rates and reduce the burden of this disease in the population.

Based on the administrative agreement between **SANTE and the Joint Research Centre**, the in-house science service of the European Commission

- **Development of the new version of the European Guidelines for Quality Assurance in Breast Cancer Screening and Diagnosis, and**
- **Development of a voluntary European Quality Assurance scheme for Breast Cancer Services underpinned by accreditation and evidence-based guidelines**

Accreditation is the last level of public control in the European conformity assessment system. Accreditation is designed to ensure and attest that conformity assessment bodies (e.g. laboratories, inspection or certification bodies) have the technical capacity to perform their duties adequately.

Exemple for Colorectal Cancer Screening ?



The Commission gathers EU-wide information on cancer

The development of a cancer information system for the EU, in close cooperation with:

European Network of Cancer Registries (ENCR),

International Agency for Research on Cancer (IARC)

EPAAC (*European Partnership Action Against Cancer*)

EUNICE (*European Network for Indicators on Cancer*),

HAEMACARE (*Cancer registry on haematological malignancies*)

RARECARE (*Surveillance of Rare Cancers in Europe*)

EUROCARE (*Survival of Cancer Patients in Europe*)

EUROCOURSE (*Europe against Cancer: Optimisation of the Use of Registries for Scientific Excellence in research*)

The data will generate a dynamic European cancer atlas which will enable to monitor the direct affects and benefits of cancer policy interventions whilst also providing an invaluable resource for cancer epidemiological research allowing greater understanding of the differences and related causes in population-based studies.



The Commission supports Member States in their efforts to fight cancer: the European Partnership for Action Against Cancer Joint Action (2010-2013).

- The **majority of Member States met the target of producing a National Cancer Control Plans (NCCP) before 2013. 25 of the 28 Member States had some type of NCCP or programme or strategy by 2014.** The NCCPs present significant variations in terms of scope, of the topics included in the programme, the presence of indicators for their monitoring and/or evaluation, the duration of the plan/programme/strategy, the period of preparation and the involvement of patients.
- EPAAC has provided three key deliverables useful for the further development and quality improvement of NCCPs:
 - **A report on the current state of NCCPs in the European Union**
 - **A Guide for the production of High Quality NCCPs in the European Union**
 - **Indicators for monitoring, evaluation and modification of NCCPs .**
- Europe is one of the world's leading regions for cancer research. Most of this research is funded and carried out within individual countries. To help coordinate and connect the many and various national efforts, the EU: funds initiatives such as the **mapping of national cancer funds via the TRANSCAN network**; optimises and links national and regional cancer registries via the EUROCOURSE network; and facilitates expert exchanges and helps transfer best practice from one country to another.



The future Joint Action (2014-2017) on the Development of the European Guide on Quality Improvement in Comprehensive Cancer Control

This Joint Action has one key deliverable: The 'European Guide on Quality Improvement in Comprehensive Cancer Control'.

The European Guide on Quality Improvement in Comprehensive Cancer Control will act as a European benchmark, providing a roadmap or strategy to optimize cancer care. Its preparation will consider the following:

- Differences in socio-economic, cultural and organisational situations, which may lead to differing uses/interpretations of the guide,
- Strong evidence base for all recommendations,
- Use of sound methodological model, preferably one already in existence,
- Inclusion of policy based arguments alongside clinical guidelines,
- Incorporation of HTA (Health Technology Assessment) approaches,
- Literature review and meta-analysis of already existing sources
- Usefulness for the Member States



Consulting with Member States and relevant stakeholders

- In order to increase the visibility and to improve the coordination of the range of cancer initiatives at EU level, the **European Commission Group of Experts on Cancer Control**, has been established by Commission Decision in June 2014.
- This would build upon **the previous Advisory Committee on Cancer Prevention** (created in 1996 and discontinued later).
- This would respond to demands from Member State representatives and stakeholders for improved coordination in the light of the expanding cancer work.
- In addition, sharing knowledge and information can help resolve some of the difficulties that Member States are facing in cancer control and will facilitate cooperation with other significant actors such as the International Agency for Research on Cancer, the Joint Research Centre and patients organisations.

Thank you for your attention!

