Introduction: the problem of cancer in Europe

There are almost 3 million new cases of cancer across Europe every year, resulting in 1.7 million deaths [1]. With an estimated prevalence of about 3%, increasing to 15% at old age, cancer has become a major public health problem. Almost 50% of deaths at middle age are caused by cancer, in part due to declines in mortality from other causes of death [2]. Cancer is expected to grow over the next decades, both as a cause of morbidity as well as mortality.

Causes of cancer range from genetic structures, through unhealthy lifestyles and contaminated living and occupational environments to yet unexplained cancers. It is important to stress that we know of the many links between unhealthy lifestyles and cancer [3].

There were and still are several Europe-wide initiatives in progress, which provide valuable inputs for the development of joint international activities, including a potential revival of the EU action plan against cancer. Among these, we would like to mention, in particular, the importance of the European Code against cancer, which saw its third revision in 2003 [4]. For the developments within the EU the successful and extensive programme ‘Europe against cancer’ [5] was extremely important. Unfortunately, this programme ended in 2003, on the eve of the biggest enlargement of the EU. Even though its termination was due to conceptual changes in the programme, it was a pity since the new member states may have benefitted from it.

There are large differences (even twofold between the two extremes) both in incidence rates as well as in survival rates within the European Union and across Europe as a whole, as regularly reported by the EUROCARE project [6]. The causes of these differences encompass a wide range of elements – from differences in epidemiological patterns, lifestyle options and cancer prevention programmes, to screening programmes and the use and availability of diagnostic and therapeutic possibilities. An important factor is the availability of adequate human and technological resources needed to manage the different cancerous diseases.

Problems related to cancer control and management

Demographic transition

Populations in Europe rank among those ageing most quickly in the world. As cancer becomes more frequent with advancing age, this will have an important impact on the social and economic development in those countries affected. Based on the data by Ferlay [7], we can see that ageing contributes to an important share of cancer
incidence. If we take that there is no change in incidence or any major intervention, then ageing alone would bring the incidence of cancer in the greater Europe to 3.4 million (which is 20% more than in 2002). Estimates for 2020 (based on unchanged 2002 incidence rates) show [8] that incidence will increase by 24% in men and by 15% in women. Most of these increases will be in those aged 65 years and over.

Epidemiology of cancer in Europe

Given the demographic transition, cancer will become a key health and public health problem by the second quarter of this century, especially in Romania and Bulgaria, but also in Slovenia [9]. Different predictive simulations show that a decline in incidence of 1% a year would still result in a bigger number of incident cases in 2020, solely due to ageing. Only an annual drop in incidence of 2% would bring the incidence below 2 million a year in 2020. Higher incidence and mortality rates in central and eastern Europe are a result of uncontrolled negative life-style patterns and of inadequate cancer screening programmes [10].

Trends in lifestyle changes

Lifestyle changes could potentially modify the forthcoming processes. Presently, trends in smoking prevalence, alcohol abuse, inappropriate diet and obesity are not encouraging. The EU co-financed project ‘Closing the Gap’ gave important insights into the determinants of health.

Registration and monitoring of cancer and cancer care

Registration of cancer varies greatly across Europe, which influences the way cancer and cancer care are monitored. Absence of coherent cancer registers in many countries prevents the integrated linkage of screening and treatment data. Regardless of the existence of a consistent national cancer plan, it is important to maintain a quality-based national cancer registry.

Approach – identified problems and solutions

In order to address the problem of cancer at the highest level, the Slovenian Ministry of Health decided to present it as the main topic of its policy agenda during the Presidency to the European Union. The approach of the Slovenian Presidency to the Council of the EU [11] was in focusing on the four key pillars: primary prevention, secondary prevention, research on cancer, and integrated cancer care.

The project included holding a brainstorming session and a policy dialogue in Brussels and the production of a book [12], which was to serve as a comprehensive resource base. The approach resulted in the successful holding of a conference on cancer at Brdo (Slovenia) on 7 and 8 February 2008. Its conclusions were incorporated in the European Council conclusions [13]. The timeline was as follows:

1. a brainstorming session in Brussels on 23 April 2007,
2. production of the book by the beginning of the conference during the Slovenian Presidency,
3. two policy dialogue sessions with the representatives of the member states in Brussels in November 2007,
4. conference on cancer and its conclusions to feed into the European council conclusions (adopted in June 2008),
5. production of a policy summary to inform policy- and decisionmakers at all levels (work undergoing, due in April 2009).

The brainstorming session gathered the most important representatives of the key international organisations dealing with cancer (IARC, WHO, INAHTTA), together with the representatives of the European Commission, Portugal, Germany, Ireland and Slovenia in order to discuss the proposed approach and the envisaged outcomes. The session gave full support to the approach and the tentative directions. In November 2007 the four pillars were discussed with the representatives of the member states. Most attention was given to the primary prevention and screening pillars as they are those which inherently belong to the domain of the EU involvement. Still, general support for the activities regarding integrated care and research was given to the Presidency’s activities. The book, Responding to the challenge of cancer in Europe, was designed and produced as a resource book on all the different dimensions of cancer to support actors involved in cancer management at all levels. The conference was organised around the key topics - epidemiology, overall cancer burden, old and new member state differences, outlooks for the future, panel policy discussions and workshops around the topics of the four pillars. The Council conclusions produced a summary of the activities proposed and represent a sound base for the new launch of a EU action plan on cancer.

The Slovenian Presidency tried to identify those best practices from the previous initiatives as well as the current proposed approaches in order to bring the debate around them to an integrated action for a more successful cancer management.
Following the four pillars of the approach to cancer the most important topics and points were:

I. Primary prevention

1. **Continued efforts through health promoting activities** - Slovenian Presidency had, as its second health topic, alcohol control in the EU [14] as one of the most important areas of future concerted action; apart from that, support for the activities in tobacco control through the introduction of the ban on smoking in closed public spaces as an important contributor for reducing cancer burden in the future.

II. Secondary prevention - screening programmes

1. **Support for the continued activities in developing national cancer registries** - activities of EUROCARE and other international activities showed that without a national cancer registry, a country is not realistically able to assess its epidemiology, success of early detection and treatment efforts and survival rates; it is therefore of great importance to aim to develop national cancer registries, especially when considering concerted national actions, such as national cancer plans or national organised screening programmes.

2. **Implementation of organised nationwide screening programmes**, whenever scientific and practical evidence (through validated guidelines) exists; screening programmes could importantly influence morbidity and mortality for certain highly incident and prevalent cancers - cervical, breast and colon; it is true, however, that it is only ethical to launch a screening programme when one is able to insure the totality of subsequent medically required care.

III. Integrated cancer care

1. **Development of national cancer plans**, though a controversial issue for some, evidence exists that providing a strategic document to tackle the key elements of cancer care and management is a reliable way in which we can ensure all the necessary resource, transparency of the processes involved and the respective monitoring and reporting.

2. New scientific evidence based on primary and applied research brings multifaceted outcomes, which need independent assessment in order to provide a balanced and economically sound introduction of these into everyday practice.

3. **A need for an EU-wide approach to health technology assessment (HTA) already tested**, already tested within the DG SANCO sponsored project EuNetHTA. This should ensure wider experience is shared across countries and offer the smaller member states an opportunity to receive inputs for their own decisions, even in cases where it would not be cost-effective for them to perform such activities by themselves.

4. **Integration of care should include**:
   a) integrating all levels of cancer care and supporting primary care activities,
   b) providing comprehensive information about the prevention activities,
   c) ensuring comprehensive and continued management of all cancer patients,
   d) organising and sustainably ensuring the availability of adequate rehabilitation services,
   e) organising and sustainably ensuring the availability of palliative care for all cancer patients,
   f) organising efficient monitoring of the quality of cancer care through the development of comprehensive cancer registration,
   g) integrating care also in cases when patients need to undergo a part of their treatment abroad.

IV. Research on cancer

This act increasing in complexity and requires an ever greater use of diverse resources. This often means that public sources are not up to the task of matching the requirements. Industry is seeking to play an important role in cancer research and its involvement seems inevitable. The overall agenda should remain under the public’s control as cancer is generally treated from public sources. This fact emphasises the need to develop efficient and well-managed partnerships between national authorities and industry. Research on cancer should become a national priority in all countries with national authorities ensuring sufficient public funds for research efforts. National Ministries of Health should maintain the decisive role in prioritising cancer research as part of the overall health priorities.

The Council of the European Union adopted ‘Council Conclusions on reducing the burden of cancer’. This act will ensure that the base for a new action plan is set and that the topic remains on the health policy agenda for several years to come and binds the Commission to report on the progress made.

**Lessons learned and the proposed options for the region of South-eastern Europe**

Countries in the region are at different status relationships with the European Union (from full membership to various stages in line for a candidate status), which makes discussions at the EU level relevant for all the countries in the
region. The main lessons, which could serve as guidance in the future decisions at the national health policy level, are as follows:

1. Countries in South-eastern Europe should focus on adopting proven strategies in health promotion.
2. They should insist on setting up, maintaining, and developing cancer registries for a successful cancer control strategy.
3. In the region organized screening programmes should be adopted cautiously and gradually and only for those cancers, where enough evidence about their efficiency and effectiveness exists.
4. National research programmes should support cancer research aiming at developing a stable publicly-financed scientific base.
5. Integration of cancer care should include activities and interventions at all levels, ensuring the continuity of care, its accessibility and accountability of each segment of cancer care.
6. Rehabilitation and palliative care should be two dimensions of integrated cancer care that need to be further developed and provided for all patients who require them.
7. National authorities should develop mechanisms to incorporate health technology assessment into the decision-making process on financing cancer care.
8. All these activities should lead to the development of a consistent national cancer plan. European Union. The approach of the Slovenian Presidency to the Council of the EU [11].

Conclusions

Cancer is an increasing public health problem that needs concerted action both at the national as well as at the international level. Acknowledging its multidimensional importance should be reflected in addressing all the four most important levers for its management. Organising integrated cancer care and research in a fair way should enable citizens of all European countries to benefit from international co-operation and from positive optimisation of the available resources. Finding the right balance between the different activities needed to successfully address the problem of cancer remains a difficult task for the future. The final aim should be an organised effort directed at developing a consistent national cancer plan.

Looking back we have to note that there were (and probably still are) several barriers to the implementation of the integrated cancer management activities. They concern the still present fragmentation of services, lack of integration, insufficient implementation of screening programmes (partly due to the shortage of funding to treat the resulting incident cases), reluctance to deal with all the amenable risk factors successfully through intense health promoting activities, insufficient international co-ordination and support in the practical implementation of training for cancer management, as well as the challenges for smaller member states in facing growing resource problems in managing cancer.

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