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Analysis of National Cancer Control Programmes in Europe

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Table of Contents

Foreword

Fighting cancer through cancer plans

The inherent complexity of the fight against cancer and the burden of the disease make it one of the most serious threats to public health in Europe and globally. While the World Health Organization estimates that one third of all cancers are preventable and another third can be cured if detected on time and treated adequately, to best fight cancer one must look beyond early detection and treatment and into the overall organisation of health systems to comprehensively deliver cancer control. As the blue print of cancer control strategies, National Cancer Control Plans play an important role in the optimisation of health systems and, if organised well and equipped with adequate resources, can help to reduce the burden of cancer.

The study "Analysis of National Cancer Control Programmes in Europe" by Prof. Rifat Atun, Prof. Jose M Martin-Moreno and Mr. Toshio Ogawa constitutes the first comprehensive analysis of National Cancer Control Programmes in Europe. In addition to providing a snapshot of the current situation, the report lays the ground work for the development of effective cancer plans by considering the overall health systems context in which the plans are implemented. The study constitutes an important contribution to the public health field, benefiting all stakeholders in their fight against cancer, whether at the national or international level.

In order to establish the first comprehensive assessment of National Cancer Control Programmes, the authors carried out a systematic analysis of all existing plans in Europe. Their report finds that despite the growing number of plans set up in Europe (19 in the 31 countries studied), significant differences remain between them. Even more worrying is the fact that in many cases, elements crucial to the efficacy of the plans such as financing, resource allocation or governance were missing or inadequate.

To compare the existing National Cancer Control Programmes, it was necessary to develop a new analytical framework. This enabled them not only to formulate a precise inventory of the measures included in each plan but also to assess their integrity by establishing critical elements that adequate plans should contain.

Having dedicated an important part of both my professional and political life to healthcare issues and specifically cancer, I believe that this report and in particular the analytical framework on which it is based constitutes an important contribution to furthering the understanding of the current cancer control programmes in Europe. Relevant to all public health policymakers and other stakeholders, this report will be of great value to all those involved in the current work of the European Institutions against cancer and in particular the 'Cancer Partnership' to be set up by the European Commission in the second half of 2009.

Controlling cancer in Europe will require the investment of substantial resources and the effective coordination of national policies. While recognising that different countries are affected in different ways, this report is a first and crucial step forward in forming a common guiding framework to foster excellence in cancer control planning. In this context, the EU has an important role to play in coordinating policies and disseminating best practices to support and complement national efforts, with a view to achieving comprehensive, effective and equitable cancer control strategies across Europe.

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0. Executive Summary

The objective of this study is to carry out a systematic assessment of the currently available National Cancer Control Plans (NCCPs) in Europe based on an analytical framework which consistently follows a health systems approach (examining not only the service provision aspect, but also issues of financing, resource generation and governance).

The rationale for the investigation arises upon observing the emerging trend, propelled by repeated calls from patients, cancer experts and international bodies, to articulate an organized plan of action to face the cancer burden in all its settings. The researchers understand that an analysis using this approach will enable a consistent and objective comparison of planning to address the cancer burden in various settings: enabling systematic mapping of cancer plans in different countries and identifying the good practices and diversity that exists. In turn, this knowledge could be used to improve the quality and coherence of present and future cancer plans.

Our study was confined to 31 European countries (the 27 EU member states, plus two acceding countries —Croatia and Turkey—, and two other countries of the region —Norway and Switzerland). Nineteen published NCCPs were identified: in Belgium, Denmark, England, Estonia, France, Hungary, Ireland, Italy, Lithuania, Malta, Netherlands, Northern Ireland, Norway, Poland, Portugal, Scotland, Spain, Switzerland and Wales.

There is no internationally adopted common format of an NCCP or a commonly accepted framework for their analysis. We therefore drew on earlier conceptual and empirical work to develop an analytical framework to systematically and consistently analyse the NCCPs. The framework uses a health systems perspective in analysis to identify a number of common elements to be addressed in any sound plan: situation analysis, namely; (i) priorities, aims and objectives; (ii) recommended actions; (iii) sources and magnitude of financing; (iv) resource allocation; (v) delivery mechanisms; (vi) quality control; (vii) timeframes and deadlines; and (viii) institutions in charge of carrying out the plan. Specific cancer services recommended by the World Health Organization (i.e. tobacco control) within the four main fields (primary and secondary prevention, integrated care and research) were then filtered through these lenses to analyse their coherence within the overall strategy.

The findings revealed that some of the above elements, especially situation analysis, objectives and recommended actions, were well articulated in the majority of the NCCPs, although there was significant variation between countries. However, other elements, particularly financing, resource allocation and governance issues, were less defined. It is striking to note, for example that only nine plans specifically stipulate a figure for macro-financing for the plans and just four detail how those resources will be allocated. These inconsistencies between goals and specific instruments to meet them point to an imbalance in the formulation of most NCCPs, where planners rely almost exclusively on cancer research (including that for cancer services) without taking into account the overall health system framework. Equity, efficiency and patient responsiveness goals were also notably absent as key goals to be realised by the NCCPs.

The general heterogeneity observed in the NCCPs can probably be attributed to two main reasons: first, the intrinsic history and organizational aspects specific to each country and its health system; and secondly, the lack of an accepted framework to aid in the formulation of a national cancer control plan.

While the health systems framework is a useful tool to compare NCCPs between countries, an “individualized” framework is contemplated to guide policy decisions based on specific demographic, economic, political, legal and regulatory, epidemiological, socio-demographic, ecological and technological circumstances that collectively shape the broad context within which health systems and national cancer delivery structures are embedded. In addition to systematically considering the framework functions, this approach enables systematic evaluation of the strengths and weaknesses of healthcare and cancer care structures and helps to set specific goals and targets based on measurable indicators. Conceived as an operative tool for health system planners, this analytical skeleton is intended as the “next link” in the chain towards elaborating an effective cancer policy capable of equitably providing cancer services to all who need them.

1. Introduction

1.1. Cancer and cancer burden

Cancer is one of the most significant causes of global burden of disease. The World Health Organization (WHO) has estimated that in 2005 around 7.6 million people died from cancer, representing 15 per cent of the 58 million deaths worldwide. Based on the current projections, this figure is expected to rise to 9 million in 2015 and 11.4 million by 2030: a number exceeding worldwide deaths from tuberculosis, HIV/AIDS and malaria combined (Ferlay et al., 2007; IARC 2003).

In addition to the human costs, cancer is also a source of significant economic burden due not only to the directly related healthcare costs (hospital care, other health services, new technologies and drugs), but also to the welfare costs associated to loss of productivity and human capital. One study estimated the direct costs of cancer care in the United States of America in 1990 to be US$ 27.5 billion, with indirect costs of premature mortality from cancer amounting to almost US$ 59 billion (Brown et al., 1996).

Total healthcare expenditure on cancer services in 19 European countries, which are also members of the Organization for Economic Cooperation and Development, has been estimated to be in the region of 54 billion Euros. In European countries, expenditure for cancer ranges from 4.1% (the Netherlands in 1994) to 10.6% (Sweden in 2002) of total national health expenditures (Annex 1 Table 1) (Wilking and Jonsson, 2006).

Few studies have analyzed how financial resources for cancer care are allocated at national level; for example to infrastructure, human resources, diagnostic and treatment technologies and innovative drugs. One study by The European Society for Medical Oncology which analyzed the number of medical oncology facilities, comprehensive cancer centres, palliative care facilities, and the number of medical oncologists in European countries has shown wide variations in the number of medical oncology facilities among European countries: ranging from 1 to 13 per million population (Medical Oncology Status in Europe Survey (MOSES) II, 2006).

Given its human and economic cost, the World Health Organization has intensified its efforts to more effectively respond to the cancer pandemic. The World Health Assembly, for example, has passed five key resolutions in an effort to put knowledge into action concerning cancer control[1]. The most significant of these was in 2005, when the *Cancer Prevention and Control Strategy Resolution* was adopted by the 58th World Health Assembly (Nieburg 2005; WHA 2005). The Resolution outlined a number of objectives, in particular the development of the WHO cancer control strategy at global, regional and national levels aimed at improving knowledge to implement effective and efficient programmes for cancer control, accelerating the translation of knowledge into a reduction of cancer burden and improving quality of life for cancer patients and their families.

1.2. Cancer in Europe

In 2006, there were approximately 1.7 million deaths from cancer in Europe, accounting for around 20 percent of all deaths. After cardiovascular disease, cancer is the second most common cause of death. During the period 2004 to 2006 the total number of new cancer cases increased annually by 300,000, to reach 3.2 million (Ferlay et al., 2007). Such are the mortality and incidence rates of cancer in the European Region that cancer now contributes 11 percent of the total disease burden in the Region (WHO/EURO, Copenhagen).

However, this burden is not evenly distributed, as cancer incidence among European countries varies significantly. For example, while the mean age-standardized incidence rate for colon and rectal cancer for males was 55.4 per 100,000 population, this rate ranged from 13.6 in Albania to 106.0 in Hungary. Similarly, for breast cancer, the mean age-standardized incidence rate was 94.3 per 100,000 population, and it ranged from 51.6 in Republic of Moldova to 137.8 in Belgium (Annex 1 Table 2) (Ferlay et al., 2007).

As with incidence, EUROCARE 3 and 4 studies[2] (EUROCARE-3, 4) and the CONCORD study[3] (Coleman et al., 2008) have reported large variations of cancer outcomes among European countries.

According to the EUROCARE-4 study published in 2007, survival for patients diagnosed in 2000–02 was generally highest for those living in northern European countries and lowest for those living in eastern European countries. Countries with higher national expenditure on health during 1994–2002 generally had better survival for all cancers. Denmark and the UK had lower survival than countries with similar expenditure (Annex 1 Table 3) (Verdecchia et al., 2007).

The CONCORD study has also reported large variations of cancer survival among European countries in the world. For example, while the age-standardized 5-year relative survival for breast cancer for women in Europe was 73.1%, this ranged from 57.9% in Slovakia to 82.0% in Sweden. Similarly, the age-standardized five-year relative survival for prostate cancer in Europe was 57.1%, ranging from 37.1% in Poland (Polish registries) to 86.1% in Austria (Tirol) (Annex 1 Table 4) (Coleman et al., 2008).

A number of initiatives have increased attention to cancer in Europe[4] (Martin-Moreno et al., 2008), including, the "Europe

[1] WHA 51.18 – Non-communicable disease prevention and control; WHA 53.17 – Prevention and control of non-communicable diseases; WHA 55.23 – Diet, Physical Activity, and Health; WHA 56.1 – WHO framework convention on tobacco control; WHA 57.12 – Reproductive health draft strategy to accelerate progress towards the attainment of international development goals and targets; WHA 58.22 – Cancer Prevention and control.

[2] EUROCARE study is a large, population-based cooperative study on survival of patients with cancer in Europe, which aims to regularly monitor, analyze and explain survival trends and between-country differences in cancer survival

[3] The CONCORD study provides a systematic international comparison of survival between Europe, North America, and all other countries

Against Cancer (EAC)" programme initiated by The European Commission (EC) in 1987. The Europe Against Cancer Action Plan for 1987-89 contained seventy-five action points covering areas of primary prevention, health promotion and education for the public and health professionals, and scientific research into the causes of cancer. The primary objective of the EAC Action Plan was to reduce cancer mortality by 15% by 2000 from the projected figures through a strategy involving the mobilization of national support (European Commission 1987). Two additional action plans followed on (1990-1994; 1996-2002), before the Action Plan was transformed in 2003 into the updated version of the "European Code Against Cancer".

1.3 National Cancer Control Programme (NCCP)

Despite numerous initiatives on global and regional levels, the lives of millions of people are lost to cancer each year. Yet appropriate lifestyle choices could help prevent up to one third of all cancers while early detection and effective treatment could avert a further one third of deaths (Burton 2006). But early detection and treatment requires effective health system responses, and optimal planning, organisation of prevention and detection programmes as well as curative and palliative services have so far eluded us, remaining a challenge universal to all health systems (Sikora 1999). To address these health system challenges to effectively respond to the cancer pandemic, the World Health Organization has recommended development of National Cancer Control Programmes (NCCP): a systematic and holistic approach to ensure implementation of best practice in cancer prevention and treatment. An NCCP is described by the World Health Organization as:

> "a public health programme designed to reduce cancer incidence and mortality and improve quality of life of cancer patients, through the systematic and equitable implementation of evidence-based strategies for the prevention, early detection, diagnosis, treatment and palliation, making the best use of available resources" (WHO 2002).

Ideally, NCCPs should be informed by a systematic review of the cancer burden of a country and identify structures, service delivery mechanisms and cost-effective interventions (based on latest scientific evidence) to effectively address this burden. The plans should identify priorities to be addressed and specific actions that a nation should take to reduce its cancer burden (Burton 2006), taking into account characteristics of the particular context.

They should address a wide range of issues and implementation methods of diagnosis, prevention, patient pathways, human resource strategies and uptake of innovative cancer treatments. It is also essential to commit to carrying out each part of the plan once it has been formulated, paying close attention to financing and governance issues. The World Health Organization identifies NCCPs as the most appropriate mechanism for exploiting existing knowledge with the potential to save millions of lives (Ngoma 2006).

In Europe, there is a strong momentum towards formulating NCCPs. This trend is very promising, as a comprehensive plan covering all aspects of cancer care is a promising tool to guide health system responses to reduce the cancer burden. However, despite the potential benefits of NCCPs, to date, there have been no major studies to provide a general overview of NCCPs across Europe.

The objectives of this study are to identify which European countries have developed and implemented national cancer control plans, explore the nature and content of NCCPs in the European countries which have developed them to identify convergence and divergence in the approaches to fight cancer and to elicit gaps in cancer control.

The analysis may prove especially useful for those countries which do not yet have an NCCP, and those which want to use the findings to improve or update their existing NCCPs.

[4] These include the Europe Against Cancer programme (1985); The European Network of Cancer Registries (1989-), the EUROCARE studies (1989-). The Charter of Paris against Cancer (2000), The EUROCHIP network (2001-), the European Code Against Cancer (2002), The European Council's Recommendation of Screening (2003), the European cancer network (2003-), EUNICE (2003-), the EUROCAN+ Project (2005-2007), the European Alliance Against Cancer (2005), the WHO resolution on Cancer and Global Cancer Control Strategies (2005), the WHO Framework Convention on Tobacco Control, the Warsaw Declaration on Cancer (2005) and the Statement issues by the Members of the European Parliament's "MEPs Against Cancer" group in 2005.

2.0 Methodology

2.1 Identification of NCCPs across Europe

In our study we included specifically national cancer control plans that were comprehensive in nature and were developed by ministries of health or the government agency responsible for health (Rochester et al., 2005). We excluded from our analysis national health policies, strategies or health plans which included a section on cancer as well as national plans that only focused on a narrow area for cancer control, such as national cancer screening programmes. While acknowledging their value, for the purposes of this study to allow comparability we also excluded plans that were regional, and those that were developed by non-governmental organizations, such as professional or patient associations.

Our study was confined to 31 European countries, which included the 27 European Union member states, two acceding countries (Turkey and Croatia), and two European countries (Norway and Switzerland) that are not members of the EU but are members of the OECD, a member of the European Economic Area (Norway) or linked to the EU through a bilateral agreement (Switzerland).

We included in our study NCCPs published between 1st January 2000 and 31st March 2008 which were publicly available. We identified and sourced these plans through Internet database searches, interviews and email communication with Ministry of Health representatives, WHO and affiliated organisations, and selected NGOs working in the cancer domain.

Where national plans were not publicly available, we approached the relevant ministries by letter, and then followed these by telephone and email. We were unable to get a response from two of the countries we approached and for which the national plans were not publicly available.

2.2. Framework for Analysis of NCCPs

There is no internationally adopted common format of an NCCP or a commonly accepted framework to adopt them. Such a framework for analysis or an agreed format for NCCPs does not exist in Europe or globally.

Management of cancer is inherently complex, as it requires multifaceted and simultaneous interventions in different but interlinked health system functions. As with the disease burden for cancer, the resources available generally for the health system and specifically for cancer control, governance arrangements, organizational structure and service delivery for the health system and cancer control and bottlenecks within these will vary in different countries. Similarly, given the lack of an internationally accepted framework, the heterogeneity in the cancer burden and health system characteristics the structure and content of cancer plans to address the disease burden and the bottlenecks in each cancer control system will also vary by country. However, as with any sound strategic plan, one would expect NCCPs to include a number of common elements that are critical components of any such plan, including: situation analysis which clearly identifies the burden of cancer and problems that need addressing, priorities among these problems; aims and objectives of the plan; actions/interventions to address problems and priorities, sources and magnitude of financing to fund the proposed interventions; where resources will be allocated; mechanisms by which these interventions will be delivered; specific targets with measurable indicators; timeframes for achieving these targets; and institutions charged with delivering these interventions and achieving these targets.

It follows therefore that NCCPs need to focus not only on delivery of cancer services but also on the other critical health system functions, such as governance, financing and resource allocation.

We used a health systems approach (Atun and Menabde 2008) to develop an analytical framework to systematically and consistently analyse NCCPs. The analytical framework draws on earlier frameworks used to analyse health systems and targeted health programmes (Atun et al 2005) (Box 1 and Figure 1).

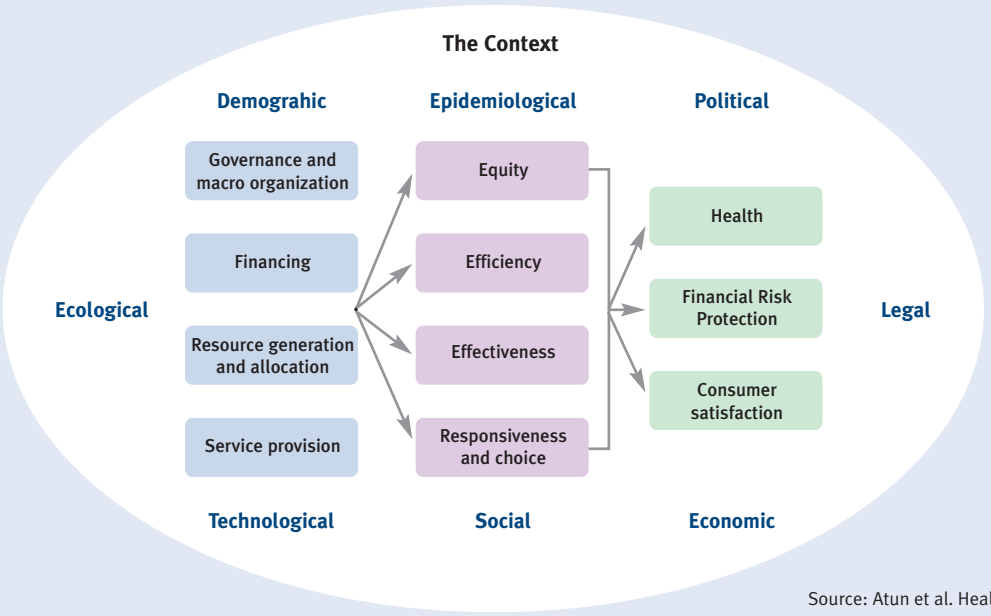
Box 1: Analytical Framework

The analytical framework uses a health systems lens and identifies four policy levers available to policy makers and managers working in health systems. Modifying these levers enables policy makers to achieve different intermediate goals and longer term goals for the health system or in relation to a disease programme.

"Organizational arrangements" refers to the policy environment, governance structures, stewardship function and structural arrangements in relation to funding agencies, purchasers, providers and the regulators. "Financing" refers to financial design and financial pooling. "Resource allocation" refers to the mechanisms used for resource collection and the provider payment methods used to remunerate health care providers. "Service provision" refers to the service "content": the services provided by the health sector or the programme concerned rather than the structures within which content is delivered.

The intermediate goals in the framework – equity, (technical and allocative) efficiency, effectiveness and choice – are frequently cited by others as end-goals in themselves, in addition to the commonly accepted ultimate goals of improving level and distribution of health, financial risk protection and user satisfaction, which are also goals for in our framework.

Figure 1: Framework for Analysing Health Systems and Programmes



Source: Atun et al. Health Policy, 2006.

We combined the health systems framework above with a set of essential criteria for cancer control identified by WHO (WHO 2002). The components of the cancer specific analytical framework we used to analyse the NCCPs is shown in Annex 2.

2.2.1 Analysis of NCCPs

We analysed the contents of each cancer plan by mapping them to the components of the analytical framework (See Annex 2). We also analysed the key aims, objectives (or recommendations), targets and measurable indicators stated in each of the NCCPs.

3. Results

3.1. The NCCPs Included in the Study

Nineteen NCCPs were eligible for inclusion based on the criteria for identification and analysis described above (List of NCCPs shown in Table 1 in Annex 3). In the UK, each constituent country (England, Scotland, Northern Ireland, and Wales) has published an original NCCP so we analysed them separately. In Norway and England, two NCCPs have been published in the research period. We selected the most recent NCCP for each country for the analysis. The Belgian, Italian, Lithuanian, Polish and Spanish NCCPs were not available in the English Language, so they were translated into this language before analysis.

We confirmed that at the time of analysis, an NCCP had not yet been launched in 13 countries (Austria, Croatia, Cyprus, Czech Republic, Finland, Germany, Greece, Latvia, Luxembourg, Slovenia, Slovakia, Sweden, and Turkey) through telephone conversation or email communications to the Ministry of Health. These 13 countries were excluded from the analysis.

In two countries, Bulgaria and Romania, we were unable to receive official confirmation from the Ministry of Health regarding the existence of NCCPs. These two countries were also excluded from the analysis.

3.2 Summary of the contents of NCCPs

Contents of the NCCPs were summarized using six categories: situation analysis, aims and objectives, actions and recommendations, financing and resource allocation estimation, measurable indicators and targets, and deadlines.

Eighteen of the 19 NCCPs include situation analyses which contain systematic reviews of the cancer burden of the nation. In Poland, the NCCP is a legal document and does not include a situation analysis.

All of the 19 NCCPs have clearly-stated aims and objectives. For instance, the English NCCP has specified six objectives of the programme as follows:

- Save more lives – through prevention of cancer whenever possible and through earlier detection and better treatment;
- Improve patients' quality of life – by ensuring that services are patient-centred and well coordinated and by offering choice where this is appropriate;
- Reduce inequalities in public awareness of cancer, in access to services and in service quality – thereby reducing inequalities in cancer outcomes;
- Enable cancer care to be delivered in the best place, at the right time;
- Achieve maximum value for money for the tax payer and the NHS, by ensuring that resources are directed where they will yield the most benefit;
- Build for the future, through education, research and workforce development.

Each country's NCCP, except for Poland, has specified actions and recommendations for achieving its aims and objectives. For instance, the English NCCP has specified the necessary actions as:

- To improve cancer outcomes
  - Prevention – over half of all cases of cancer could be prevented through changes to lifestyle such as quitting smoking, maintaining a healthy weight and avoiding excessive alcohol consumption, but public awareness of many of these and other risk factors is low;
  - Earlier diagnosis and treatment – if we can diagnose more cancers early we can have a significant impact on survival rates. Enhancing cancer screening, improving public awareness of cancer symptoms and going further on cancer waits will help to achieve this;
  - Ensuring access to cost effective treatments – we need to tackle the serious shortage of radiotherapy capacity and there are concerns about delays in our uptake of new cancer drugs. We also need to encourage the spread of improved surgical techniques;
  - Improving patients' experience – a higher priority should be placed on improving information for patients, face-to-face communication with health professionals and co-ordination and continuity of care. We also need to do more to support patients throughout their survivorship;
  - Reducing cancer inequalities – we can tackle inequalities in the experience and outcomes of different groups in society through better data collection, research and spreading good practice;
  - Delivering care in the most appropriate setting – we can achieve the quickest possible diagnoses and reduce unnecessary stays in hospital with new service models for cancer;

- To ensure delivery
  - Better information – improved collection and publication of data on clinical outcomes for cancer will improve service quality and strengthen commissioning and is a prerequisite for informed choice for patients. We also need to gather more information on public awareness of cancer risk factors and symptoms and on patients' experiences of cancer care;
  - Stronger commissioning – this strategy is designed to support commissioners in planning and providing high quality cancer services which reflect the needs of the local population;
  - Appropriate funding – appropriate funding will be provided to build world class cancer services but commissioners will need to ensure that money is well spent;
  - Building for the future – we need to build on the progress we have seen in cancer research in recent years, including developing a new national repository of cancer data and enhancing research efforts in areas where knowledge is lacking. We also need good planning to provide a skilled and flexible cancer workforce for the future and to deliver high-quality facilities and environments for cancer care.

On the other hand, only nine NCCPs (Belgium, Denmark, England, France, Italy, Norway, Poland, Scotland and Switzerland) mention the need to budget for implementing

the programmes. In four countries (Belgium, England, France and Poland), the entire budget for implementing the NCCPs had been estimated.

3.3. Governance and macro organization of cancer control

Health system governance and macro-organisation refers to the way the Ministry of Health (or the relevant national agency) manages the health system, as well as the structural arrangements for purchasers, providers and market regulators (Atun et al., 2005). Macro-organisational structure, responsible authorities, accountability for delivering the plan, and registry and surveillance were analysed under this component. The findings are discussed below and summarised in Table 2 in Annex 3.

3.3.1 Macro-organisational structure

Six NCCPs (Belgium, Denmark, England, France, Italy, and Northern Ireland) recommended changes to the macro-organization of cancer control. Among them, five NCCPs (Belgium, England, France, Italy, and Northern Ireland) recommend new development or enhancement of cancer networks. In Northern Ireland, the NCCP recommends developing a cancer network to plan delivery of cancer services. In England, the NCCP states that cancer networks will play a central role in developing strong cancer commissioning which will be vital to delivering world class cancer services. In Denmark, the NCCP states that the National Board of Health will ensure coordination of the local plans, but there are no clear recommendations on the macro-organization of the cancer control system.

3.3.2 Governance: responsible authorities with oversight of cancer control

Fourteen countries (Belgium, England, Estonia, France, Ireland, Italy, Lithuania, Norway, Poland, Portugal, Scotland, Spain, Switzerland and Wales) specify responsible organisation(s) for the governance, organization and oversight of delivery of the NCCPs. Among them, eight NCCPs (Belgium, France, Ireland, Italy, Northern Ireland, Poland, Portugal, and Scotland) recommend the introduction of new lead institutions which will have stewardship functions for implementing the NCCPs.

In Belgium, a Cancer Reference Centre will be responsible for implementation of the Cancer Plan. In France, a National Project Task Force, bringing together experts from central government and representatives from the medical profession, will be set up to coordinate and monitor plan implementation. In Portugal, five Regional Oncology Commissions (COR) will be established to coordinate care units and develop local and regional initiatives for implementing the strategy.

3.3.3 Surveillance and registry

The objective of cancer registries is threefold: at a national level, they allow countries to track progress and trends, identifying measures which are effective and those that are not. Registries also permit health system planners to know how many services are needed (both now and in the future) and in what areas. Finally, at an international level, outcomes can be compared—this is especially useful because it can facilitate the identification of potential factors which may vary from country to country. In order for the third function to be effective, however, it is important to unify the criteria for outcome-based indicators. The European Network of Cancer Registries (ENCR) is dedicated to this task.

Cancer registry or surveillance has been stated as an important function to improve quality of cancer care in 16 NCCPs (Belgium, Denmark, England, Estonia, France, Hungary, Ireland, Italy, Lithuania, Malta, the Netherlands, Northern Ireland, Poland, Portugal, Scotland, and Switzerland). Fifteen NCCPs recommend the introduction or enhancement of surveillance or registry at national level; the exception is Portugal where national and regional oncology registers have already been established and are being strengthened. As 13 of these countries, (the exceptions being Belgium and Ireland), have already implemented surveillance systems or cancer registries, the NCCPs have recommended enhancement of the surveillance or registry. In Belgium and Ireland, the introduction of new cancer registries has been recommended in the NCCPs.

3.4 Financing of Cancer Plans

3.4.1 Macro-level financing for national cancer control plans

Macro level financing of cancer care identified in the NCCPs is summarized in Table 3 in Annex 3. Nine NCCPs (Belgium, England, Estonia, France, Lithuania, the Netherlands, Northern Ireland, Norway, and Poland) include figures for macro-level financing for the planning and implementation of cancer control strategies. Among them, only four countries (Belgium, England, France, and Poland) have estimated the total budget allocation for implementing actions recommended in the NCCPs. In Belgium, 380 million Euros will be allocated between 2008 and 2010. In England, 70 million Pounds has been allocated for cancer care each year, while in France, 640 million Euros were allocated for cancer care in 2007. In Poland, 3 million Polish Zloty were allocated for implementing cancer programme in the years 2006-2015.

Eight of the nine countries (with the exception of the Netherlands) make clear statements regarding additional financing to support the NCCPs. In the Netherlands, however, new projects for cancer care recommended in the NCCP will be financed by the reallocation of existing resources and from efficiency gains.

The general lack of budgeting for cancer plans in many countries is worrying, suggesting that many of these plans will not have “legs” to achieve the ambitious goals set out in the NCCP. The current financial climate exacerbates this problem; rising unemployment rates raise deficits without any new spending allocations, making policy-makers reluctant to authorize new expenditures. Cancer control advocates, then, must stress both the efficiency and necessity of proper cancer service infrastructures.

3.4.2 Resource allocation for cancer care

Fourteen countries (Belgium, Denmark, England, France, Ireland, Italy, Malta, the Netherlands, Northern Ireland, Norway, Scotland, Spain, Switzerland, and Wales) mention allocating financial resources for implementing the NCCPs. These are summarized in Table 4 in Annex 3.

However, a brief glance at this table illustrates the gaps which must be filled in order to achieve real coherence and completion of cancer care funding.

3.4.2.1 New technologies

Investing in diagnostic and therapeutic equipment and technology is identified as a priority in nine NCCPs (Belgium, Denmark, England, France, Italy, Malta, Scotland, Spain, and Wales). The purpose of the investment for these countries is to purchase new, innovative equipment such as computerized tomography (CT) and magnetic resonance imaging (MRI) scanners and linear accelerators or to update old equipment. In Italy, the NCCP recommends that 2,391 million Euros should be allocated to purchase new equipment and replace old models. In England, the NCCP recommends that over 500 million Pounds should be allocated for additional and replacement equipment for cancer.

3.4.2.2 Pharmaceuticals for cancer care

Only three countries (Belgium, England and Italy) mention investing in drugs. In England, the NCCP states that cancer drug spending will be increased to 60-80 million Pounds per annum. In Italy, the NCCPs states that investing in drugs will be guided by cost-benefit analysis especially with regard to highly- expensive innovative drugs.

3.4.2.3 Human resources

Seven NCCPs (Belgium, England, France, Malta, Norway, Scotland, and Spain) focus on investing in human resources. The target of the investment varies between different countries. England, France, Malta and Norway focus on increasing the number of specialists. In England, the NCCP states that an additional 5 million Pounds should be invested for increasing number of radiotherapists. In France, the NCCP recommends investment to increase number of cancer professionals, i.e., 3900 new jobs, of which 1700 would be nursing and technical staff, 500 physicians, 400 patient support staff, and 660 in other categories. In Norway, Scotland and Spain, however, the NCCPs have mainly focused on improving the skills and competences of the existing staff.

3.4.2.4 Population based prevention and promotion activities

Six NCCPs (Denmark, England, France, the Netherlands, Scotland, and Switzerland) recommend investing in population-based prevention and promotion while all 19 NCCPs mention implementing in population based prevention and promotion activities.

In all six countries, except for the Netherlands, the NCCPs recommend investing in prevention activities such as smoking cessation, fruit and vegetable intake and ultra violet radiation. In Denmark, the NCCP recommends allocating 73 million Danish Krone for prevention/treatment of overweight children and adolescents for 2005–2008. In Scotland, 100 million Pounds will be invested to encourage and increase consumption of fruit and vegetables by children. In the Netherlands and England, on the other hand, the NCCPs recommend investing in screening activities.

3.4.2.5 Cancer registry and surveillance

Only three NCCPs (Belgium, Northern Ireland and Switzerland) mention investing in registry and surveillance, while sixteen NCCPs talk about introducing or enhancing registry and surveillance for cancer. In Belgium, 3 million Euros per year will be allocated for developing a cancer database to improve the quality of cancer data. In Switzerland, 1.4 million Swiss Francs will be allocated for setting up a national centre for cancer epidemiology.

3.4.2.6 Research and Development

Nine NCCPs (Belgium, Denmark, England, France, Ireland, the Netherlands, Norway, Spain and Switzerland) specify investment in research and development. In England, 77 million Pounds will be invested to enhance the National Cancer Research Network for the next five years. In Switzerland, the NCCP specifies that 50 million Swiss Francs will be allocated for cancer research.

3.5 Service Delivery

3.5.1 Public health interventions

3.5.1.1 Primary prevention

We analysed primary prevention programmes for reducing cancer risks using sub-categories of tobacco control, alcohol prevention, healthy diet, physical activity, exposure to sunlight, and occupational and environmental factors. The findings are summarized in Tables 5 and 6 in Annex 3.

In Belgium, a comprehensive cancer prevention programme has been implemented which provides free access to a prevention check up with a general practitioner (GP) every three years (for patients holding a global medical file from the age of 25). This programme might cover all sub-categories of the cancer prevention programmes but we could not find any specific activities in each of the sub-categories in the NCCP except for the tobacco prevention programmes. We therefore only included the tobacco programmes from the Belgian prevention programme in our analysis.

Primary prevention based on tobacco use and healthy diet were common to all of the 19 countries as stated in the NCCPs. Enhancing physical activities and avoiding excess exposure to sunlight were also commonly identified as a priority by 14 countries. Thirteen countries mentioned strategies to in their NCCPs prevent alcohol misuse.

i. Tobacco control

All of the 19 counties included strategies to enhance tobacco control in their NCCPs, an encouraging reflection of the consensus among European policy-makers regarding tobacco control as a public health tool. The most common strategies were promoting a smoke-free environment followed by smoking cessation, tobacco-free education, and taxation.

Sixteen of the 19 countries (with the exception of Estonia, Lithuania and the Netherlands) targeted the provision of a smoke-free environment in order to protect people from second-hand smoke. Among them, a policy of smoke-free public places has been introduced or recommended in 13 countries (Belgium, Denmark, England, France, Ireland, Italy, Malta, Northern Ireland, Portugal, Scotland, Spain, Switzerland and Wales).

Fifteen countries (Belgium, Denmark, England, France, Hungary, Ireland, Italy, Malta, the Netherlands, Northern Ireland, Norway, Portugal, Scotland, Switzerland and Wales) included smoke cessation programmes in their NCCPs. In Norway, smoking cessation programmes aimed at a 50% reduction of smokers in the younger generation whereas in France the smoking cessation programmes particularly focused on pregnant women.

Fourteen countries (Denmark, England, Estonia, France, Italy, Lithuania, Malta, the Netherlands, Northern Ireland, Norway, Portugal, Scotland, Switzerland and Wales) recommend provision or enhancement of education programmes to stop smoking. Among them, eight countries (Denmark, Estonia, France, Italy, Malta, Northern Ireland, Norway, and Switzerland) recommended provision of education programmes, particularly to young people, for reducing the number of young smokers. This includes educational programmes in school.

Increasing levies for tobacco products is recommended in nine countries (Denmark, England, France, Ireland, Italy, Malta, the Netherlands, Portugal, and Spain). In the Netherlands, the tax duty on tobacco will be raised continuously by at least 50 cents every two years, a level which is above and beyond the inflation.

ii. Healthy diet

Promoting healthy eating habits are identified as a key activity by all countries except Belgium. Seven countries (England, Italy, Malta, the Netherlands, Northern Ireland, Spain and Wales) have focused particularly on healthy food intake for children at school.

Promoting fruit and vegetable intake is mentioned in nine NCCPs (Denmark, France, Ireland, Malta, the Netherlands, Northern Ireland, Scotland, Spain, and Switzerland). Among them, the Netherlands, Northern Ireland, and Scotland focus particularly on fruit and vegetable intake at school. In Spain, the NCCP recommends that the percentage of population consuming at least five portions of fruits and vegetables in their diets should be increased 60% or more by 2007.

iii. Physical activity

Enhancing physical activities is mentioned in 14 of the NCCPs analyzed (Denmark, England, Estonia, Hungary, Ireland, Italy, Malta, the Netherlands, Northern Ireland, Norway, Scotland, Spain, Switzerland and Wales). Seven countries (Denmark, England, Hungary, Italy, the Netherlands, Spain, and Switzerland) focus on promoting physical education at schools.

iv. Alcohol

Promoting sensible drinking is mentioned in 13 NCCPs (Denmark, England, Estonia, France, Hungary, Ireland, Italy, the Netherlands, Norway, Scotland, Spain, Switzerland and Wales). Most of the NCCPs focus on increasing public awareness of alcohol misuse. In Italy, the Netherlands, Scotland and Spain the NCCPs recommend promoting school-based campaigns to provide information on risks of alcohol. Denmark and Switzerland have introduced levies on alcoholic products and have raised the minimum age for purchasing alcohol.

v. Exposure to sunlight

Sun exposure and resultant skin cancer has been targeted through education and health promotion campaigns in the NCCPs of 14 countries (Denmark, England, Estonia, France, Hungary, Ireland, Italy, the Netherlands, Northern Ireland, Norway, Scotland, Spain, Switzerland and Wales). In England and Ireland, the NCCPs recommend regulating sun beds use.

vi. Occupational and environmental factors

Enhancing awareness of occupational and environmental factors is recommended in 11 NCCPs (Estonia, France, Hungary, Ireland, Italy, Norway, Portugal, Scotland, Spain, Switzerland and Wales). Four countries (Estonia, Hungary, Portugal, and Spain) focus particularly on promoting awareness of occupational factors related to cancer.

3.5.1.2 Secondary prevention – Screening

Population-based breast and cervical cancer screening programmes have been initiated in all of the 19 countries but the target populations and the frequency of the screening varied substantially across the NCCPs of the countries studied, as shown in Table 7 in Annex 3.

In four countries (England, Northern Ireland, Portugal, and Scotland) the recommended frequency of breast cancer screening services is once every three year whereas in eight countries (Denmark, Estonia, Hungary, Ireland, Italy, the Netherlands, Norway, and Spain) the recommended frequency is once every two years.

Regarding cervical cancer screening, the target age group differed between countries: Norway has the widest age target for women aged 25-69 years, while Estonia has the narrowest targeting women aged 30-59 years.

Colon cancer screening has been recommended in ten NCCPs but had only been introduced in six countries

(Hungary, Italy, Ireland, Portugal, Scotland, and Spain) at the time of NCCP publication. Three countries (France, Poland, and Switzerland) had plans to introduce colon cancer screening and the policy was under review in Malta.

3.5.2 Structure of care delivery

The summary of the analysis pertaining to the structure of service delivery is presented in Table 8 in Annex 3.

3.5.2.1 Proposed organisational changes of service delivery

Eight countries (Belgium, Denmark, England, Estonia, Hungary, Ireland, Northern Ireland, and Scotland) identify organizational changes to service delivery in their NCCPs. In Denmark, Estonia, and France, the NCCPs recommend centralization of surgical treatment of cancer in departments which have sufficient volume of operations for the individual types of cancer to ensure satisfactory treatment quality. In England and Scotland, the NCCPs recommend that the role of GPs should be enhanced to promote effective diagnosis.

3.5.2.2 Multi-disciplinary teams

All 19 countries mention improving the accessibility of effective diagnosis and treatment services and all cite the need for the introduction or enhancement of multi-disciplinary teams in order to achieve this improvement. In England, the NCCP recommends enhancing multi-disciplinary teams, particularly to reduce waiting times for diagnosis and treatment. Within these teams, multi-disciplinary team coordinators and clinical nurse specialists are recommended to take a lead in ensuring continuity, coordination and smooth transitions between hospital and community. In Belgium and Estonia, NCCPs suggest that multi-disciplinary oncology consultations will be created, particularly to enhance palliative and rehabilitation care.

3.5.2.3 Development of networks

Sixteen countries, excluding Lithuania, Poland and Portugal, recommend the development of networks for service delivery in the NCCPs. In Denmark, Estonia, France and Malta, the NCCPs recommend that networks be established between the primary care sector and relevant hospitals and physicians for providing effective diagnosis, while in seven countries (Hungary, Ireland, Northern Ireland, Norway, Scotland, Switzerland, and Wales), the NCCPs recommend that networks should be developed at regional level.

3.5.3 Care provision

Summary of the analysis pertaining to service delivery is presented in Table 9 in Annex 3.

3.5.3.1 Availability of diagnostic and general treatment

All 19 counties include recommendations in their NCCPs to enhance the availability of diagnostic and general treatment. Among them, 12 countries (England, France, Hungary, Ireland, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Spain, and Switzerland) mention the development and enhancement of implementation plans for early detection. The Netherlands, has recommended implementation of a policy on early detection by 2005. In England, the NCCP recommends establishing a new National Awareness and Early Diagnosis Initiative, to ensure more patients benefit from the 14 day target from referral by GP to consultation by a cancer specialist.

Nine countries (Denmark, England, Hungary, Ireland, Italy, Northern Ireland, Scotland, Switzerland and Wales) recommend improving patient care pathways in the NCCPs. In Denmark, the NCCP states that patient pathways should be developed and used locally, with IT support, logistical and development expertise to assist seamless communication and implementation of the pathways between the primary sector and hospitals as well as within hospitals and to avoid unnecessary waiting times patients.

3.5.3.2 Availability of palliative and rehabilitation care

Palliative and rehabilitation care has been targeted for development in the NCCPs of all 19 countries. Sixteen countries (the exceptions being Hungary, Poland, and Wales), specify psychotherapy or psychological support for patients with rehabilitation and palliative care.

Three countries (Ireland, Malta, and Wales) focus particularly on specialist palliative care. The NCCPs for Belgium, Denmark, Italy, Northern Ireland, Norway, Portugal and Wales recommend introducing or enhancing multi-disciplinary teams and/or networks for palliative care.

3.5.3.3 Availability of innovative care (technologies and drugs)

Seventeen of the 19 countries (the exceptions being Italy and the Netherlands) recommend enhancing the availability of innovative care, e.g. increasing the use of high-technology equipment and drugs in the NCCPs. All of these 17 countries recommend improving diagnostic quality by installing new diagnostic equipment or replacing old equipment such as CT, MRI and PET. France recommends that the level of oncology-specific diagnostic equipment be increased with clear targets set as: 1 PET scan per million population and 2 CT scans or MRI facilities more per region. In Hungary, the NCCP recommends that equipment for radiotherapy be upgraded by 2010 and CT simulators be installed to complement existing simulators in radiation therapy by 2013.

Enhancing chemotherapy and/or drug treatment has been recommended in four NCCPs (Belgium, Northern Ireland, Scotland, and Spain). In Belgium, the NCCP recommends that access to innovative medicines such as Avastin™, Busulfan IV, and Rituximab be improved.

3.5.3.4 Evidence-based guidelines

Twelve NCCPs (Belgium, Denmark, England, Estonia, Ireland, Lithuania, Malta, the Netherlands, Northern Ireland, Scotland, Spain, and Wales) recommend the enhancement of evidence-based care guidelines or the introduction of an

audit system for improving early diagnosis of cancer. In Denmark, The Danish NCCP has recommended the development of local guidelines for clinical diagnosis in the primary sector. Indicators and common documentation should also be developed to enable quality development of patient pathways in the primary sector. National clinical guidelines for pharmacotherapy (standard treatments) for all types of cancer should be prepared. The clinical content of all pathways is to be planned in accordance with national clinical guidelines adapted to local conditions.

3.6 Quality Assurance

Improving quality of curative therapies for cancer was a common objective in all of the 19 NCCPs. The analysis of the elements relating to quality assurance is presented in Table 10 in Annex 3.

3.6.1 Accreditation of providers

Nine countries (England, France, Hungary, Ireland, Italy, the Netherlands, Northern Ireland, Norway, and Portugal) recommend in the NCCPs the introduction of accreditation of healthcare providers offering cancer services. In Ireland, the NCCP recommends that a system of licensing and accreditation of Cancer Centres and services be developed. In the Netherlands, the NCCP recommends that all hospitals in which cancer is diagnosed and/or treated will undergo accreditation by 2010.

3.6.2 Systems for quality assurance and control

3.6.2.1 General care

All of the 19 countries focus on improving the quality of cancer treatment in the NCCPs. Among them, in 12 countries (Belgium, Denmark, Hungary, Italy, Lithuania, Malta, the Netherlands, Northern Ireland, Norway, Poland, Portugal, and Spain), the NCCPs recommend introducing systematic quality assessment, including the development of quality indicators and development of a quality assurance system for cancer care. In Italy and the Netherlands, the NCCPs recommend establishing quality criteria for cancer care and assessing quality of cancer care using these criteria.

In seven countries (Belgium, England, Estonia, Ireland, Scotland, Switzerland and Wales), the NCCPs recommend introduction of guidelines and/or a national standard of quality of cancer care. In Ireland, the NCCP states that a National Framework for Quality in Cancer Control as well as guidelines for quality in major cancers will be established.

3.6.2.2 Palliative and rehabilitation care

In seven countries (England, Estonia, Italy, Norway, Portugal, Scotland, and Wales), the NCCPs recommend improving quality of palliative and rehabilitation care. Among them, four countries (England, Malta, Norway, and Scotland) specify introducing or enhancing guidelines or national standards for palliative care in the NCCPs. In Scotland, implementing SIGN guidelines for palliative care is recommended.

In Norway and Portugal, the NCCPs recommend developing a national standard of quality of palliative care with the development of quality indicators.

3.7 Education and Continuing Training of Health Professionals

The analysis of the elements relating to education and continuing training is presented in Table 11 in Annex 3.

3.7.1 General care

The NCCPs from all 19 countries focus on enhancing education and continuing training for professionals to effectively provide general care. All of the countries particularly recommend providing continuing education and training to professionals to improve their ability in cancer diagnosis and treatment skills. Among them, seven countries (England, Hungary, Ireland, Malta, the Netherlands, Northern Ireland, and Scotland) particularly recommend providing education and training to primary care providers such as GPs to improve their ability in cancer diagnosis and communication skills. In five countries (France, Hungary, Italy, Malta, and Scotland), the NCCPs recommend education and training, particularly for the staff providing supportive care to improve quality of cancer care.

In six countries (Belgium, Italy, Malta, the Netherlands, Northern Ireland, and Spain), the NCCPs particularly emphasise the provision of communication skills training for health professionals.

3.7.2 Palliative and rehabilitation care

Promotion of education and training in palliative and rehabilitation care is recommended in 12 NCCPs (Denmark, England, France, Hungary, Ireland, Malta, the Netherlands, Northern Ireland, Portugal, Scotland, Switzerland and Wales) in order to achieve effective, comprehensive, good quality palliative care.

3.8 Supporting Patients and Improving Patient Knowledge on Cancer

Development of coherent public information campaigns for the early diagnosis of cancers was addressed in a great majority of the plans. The analysis of the elements relating to public education is presented in Table 12 in Annex 3. Enhancing early diagnosis through awareness programmes for the population is mentioned in seven NCCPs (Denmark, England, Ireland, Italy, Malta, Northern Ireland, Poland and Wales). In Ireland the NCCP recommends educating the public about early detection and the importance of recognising symptoms, performing self-examination, and early presentation with any suspicious symptoms.

In nine countries (Denmark, England, Italy, Malta, Northern Ireland, Norway, Scotland, and Switzerland) the NCCPs recommend enhancing information for cancer patients. In

Malta, the NCCP recommends improving patient experience at all stages in the care pathway, as well as improving the provision (quality, comprehensiveness and access) of information given to patients.

3.9. Cancer Research

Eighteen NCCPs (the exception being Poland) explicitly recognise that prevention, treatment and care of cancer patients depend upon improvements in research, lifestyle and the environment. Development or enhancement of cancer research networks was recommended in Belgium, England and Switzerland. The analysis of the elements relating to cancer research is presented in Table 13 in Annex 3.

3.10 Specific targets for Success and Proposed Evaluation of the National Cancer Control Plans

Measureable indicator/targets and deadlines are important for evaluating the outcomes of a cancer control programme, but we were only able to identify twelve NCCPs (Belgium, Estonia, France, Ireland, Lithuania, the Netherlands, Northern Ireland, Norway, Portugal, Spain, Switzerland and Wales) which contained measurable indicators or targets for each action plan and eleven NCCPs which specified deadlines for each action plan (Belgium, France, Hungary, Lithuania, the Netherlands, Northern Ireland, Norway, Portugal, Spain, Switzerland and Wales). These are summarised in Table 14 in Annex 3. In France, indicators of success for 5 areas (prevention, screening, care, support, and research) are identified in the NCCP. These indicators are to be monitored on a yearly basis.

In seven countries (Belgium, England, Estonia, France, Ireland, Northern Ireland, and Scotland), the NCCPs state the method of evaluation of the plan. In Belgium, the Reference Cancer Centre will publish an annual review of the results achieved within the framework of the NCCP. In Estonia, Ministry of Social Affair and National Institute of Health Development and Cancer Registry are responsible for the assessment of strategy.

4. Discussion

The Minister of Health of Portugal during the most recent Portuguese Presidency of the EU stated: "the last few decades have seen considerable progress in cancer control in the European Union, but cancer remains a huge public health challenge" (EU, Brussels, 2007).

National Cancer Control Programmes "create multiple opportunities to change national experience from one of fear loneliness and despair to one of knowledge support and hope" (True et al. 2005). A fragmented health care organization is insufficient when addressing the complex needs of cancer patients and is related to a deficient global view of the patient. Thus, "embracing a [national] comprehensive approach to cancer control implies intent to address all aspects of the cancer continuum albeit prioritizing by documented needs, the availability of successful interventions, resources and the appropriate expertise of partners."

Despite this compelling need for a national mechanism for cancer control, 12 of the countries studied have yet to formulate, let alone implement NCCPs. While the countries that have produced plans must be commended, in most, significant gaps exist, many of which are common across these countries.

4.1 Commonalities and gaps in NCCPs

Detailed analysis of NCCPs in the countries studied revealed a number of commonalities in the plans. Some differences are the result of uncertainties in the evidence base that informs polic, due to weaknesses in national cancer registries and information systems used for data collection and analysis. Variations in burden and outcomes of cancer between European countries (Berrino et al., 2007; Eurostat 2008) could explain inter-country differences in NCCPs, or socio-political, economic and cultural differences as observed with plans for other emerging health problems (Mounier-Jack and Coker 2006). The heterogeneity is also partially understandable, given the general differences observed among European health systems and the fact that there have been no comprehensive studies of cancer plans which would facilitate comparison and better alignment informed by this comparison.

Health services related to prevention, screening, curative therapy, and palliative care were the key areas of focus in each of the 19 NCCPs. Research on cancer care was also common as it was covered by all of the NCCPs except Poland. On the other hand, there are significant variations with obvious gaps in relation to governance, macro organization of health systems for cancer care, financing of the NCCPs, resource allocation for NCCPs and targets and timelines for achieving them. These findings point to imbalances in the formulation of NCCPs, where planners rely almost exclusively on cancer research (including that for cancer services) without taking into account the overall health system framework.

A number of elements are fundamental to national cancer control plans. These include: transparent and effective governance arrangements with clearly identified accountable institutions to set appropriate outcome indicators for programme goals, lead coordination efforts, and implement the NCCPs. The plans need to identify sources of financing, the magnitude of the funds needed to implement the NCCPs and to meet current and future health needs in relation to cancer, and the areas where these resources are allocated.

Our study has identified, however, that the sources or the magnitude of financing were not indicted in most of the NCCPs. Most of the NCCPs did not identify how and to which elements of the NCCPS the available resources would be allocated and why. Only four countries (Belgium, England, France, and Poland) estimated the additional funds needed for implementing the activities specified in the NCCP. In particular, only two NCCPs identified new sources of funding for new medical technologies and innovative drugs for cancer care.

NCCPs tended to focus on effectiveness of care delivery, as captured by a number of activities aimed at improving quality, but did not explicitly mention how equity, efficiency and patient responsiveness goals will be met.

NCCPs comprise a vast number of components, each of which with an abundance of activities. As WHO points out, proficient management is needed to integrate these activities into a coherent programme: "Key to competent management is the leadership of the programme, who should be facilitative, participatory and empowering in how vision and goals are established and carried out" (WHO 2002). Few countries outlined appropriate leadership, a clearly accountable body and a coherent management strategy in their NCCPs to achieve this coherence. It was discouraging to note that no plan outlined an organisational structure positioning the existing and planned cancer services within the existing health system or how synergies can best be achieved.

4.2 Limitations of the Study

The purpose of this research was to identify NCCPs in Europe and to compare their content. We have discovered commonalities and gaps between 19 NCCPs in Europe as described above.

One limitation of this research is that we analysed the contents of publicly available national cancer control plans but due to resource limitations were unable to undertake in country studies to identify cancer control strategies within broader health policies.

The NCCPs analysed were launched at different times, which might be important in explaining some of the differences in structure and content. The oldest NCCP in our analysis was launched in Scotland in 2001 whereas the most recent was launched in Belgium in 2008.

4.3 Next Steps

We demonstrated significant variation in the structure and content of NCCPs and comparing them was challenging. While we demonstrate the usefulness of a health systems analytical framework (Atun et al 2006) combined with the WHO recommended elements for a cancer plan, there is a clear need to develop a commonly agreed framework to guide the analysis of the context, the health system and the cancer control programme to inform development of cancer plans. This is elaborated in the next section.

5. A Framework for Analysis and Development of National Cancer Control Plans

5.1 The Evolving Context and the Challenges that Need Addressing

This section should present the analysis of internal and external context (environment) in which the health system and cancer control programme operates. The analysis should focus on various factors that create certain opportunities or threats to the health system in general and the cancer control system particular, in the short- or long-run in relation to its efforts to attain and sustain its goals and strategic vision as identified by the respective ministry of health. In relation to "opportunities" the analysis should identify conditions that are conducive and beneficial for attaining the desired health system outcomes in line with the values and objectives embraced by the respective ministry of health. The analysis should identify "threats" to describe the factors that may hinder the attainment of desired health outcomes or may worsen the existing level of health system/ cancer control system performance

The demographic, economic, political, legal and regulatory, epidemiological, socio-demographic, ecological and technological settings (DEPLESET) collectively make up the context within which a health system is situated. As each country and health system has a distinct history, which influences the trajectory of system development, the analysis of the context captures the political economy of the health system. Collectively, the analysis of these contextual elements enables us to determine the opportunities and the threats faced by the health system generally and the cancer control system specifically. Changes in each of these domains create conditions that may be favourable to the health system/cancer control system or create conditions that may threaten the health system/cancer control system now or in the future. This section will follow the outline shown below:

Box 1: Key Contextual Drivers

Key Driver	Key Changes	Opportunities	Threats
Demographics			
Epidemiological changes			
Political changes			
Legal and Regulatory Environment			
Economic changes			
Socio-cultural issues			
Ecological issues			
Technological issues			

5.1.1 Demographics

How are the general population dynamics changing the country (life expectancy, mortality rate, birth rate, population growth, urban and rural differences, emigration and immigration)? What are the implications for this?

5.1.2 Epidemiology

How is the epidemiology changing (infant mortality, maternal mortality, morbidity and mortality levels by different disease groups and population segments)? Which conditions are in ascendance (incidence, prevalence for key non-communicable and communicable diseases)? Are there obvious inequities in morbidity and mortality levels? What are the national trends regarding prevalence of smoking and obesity?

Can we further unify outcome-based indicators in order to facilitate epidemiological research at a European level?

5.1.3 Political environment

This section should summarise the broad policy objectives of the government in relation to health and cancer in particular.

5.1.4 Legal and regulatory environment

This section should briefly mention key changes in the health and public sector laws impacting on the health system and the cancer control system.

5.1.5 Economy

This section should provide a brief summary of the economic outlook, GDP trends and how these changes are impacting on the government public sector budget and health system budget.

5.1.6 Socio-cultural dynamics

The section should discuss how economic changes are impacting on the poverty levels, lifestyles (especially smoking, diet and physical activity), and the expectations of the public.

5.1.7 Ecological issues

This section should briefly explore whether environmental factors in the country may impact on cancer epidemiology and the implications for the health system and the cancer control system.

5.1.8 Technological developments

The section should explore whether novel and cost-effective health interventions and information technologies and are being used to enable provision of innovative and affordable solutions to address the challenges and changing demand patterns faced by the cancer control system.

Box 2: Goals, Objectives and Indicators

Goal	Indicator
Improved Health	Mortality reduced by x% by a target date for selected cancers
Financial Risk Protection	Minimum State Guaranteed Services introduced for the whole population for cancer care Out of pocket expenditures for cancer care have declined from x% of total Health Expenditure in year x to y% in year y.
User satisfaction and Responsiveness	Consecutive user surveys demonstrate an improvement in satisfaction levels
Objectives	
Equity	• Coverage of the population with health services improved • Reduced inequities in utilization of services, waiting times, insurance coverage • Differences in outcomes between highest and lowest income groups reduced by x%
Efficiency	• Percentage of health expenditure allocated to cancer care • Time from diagnosis to treatment • Number of cancer beds per capita
Effectiveness	*Screening* • Percentage coverage for cervical smear in women aged 20-60 years *Quality* • Use of evidence-based guidelines in care delivery and adherence to these

5.2 Threats and Opportunities for the Health System and the Cancer Control System

Analysis of the above factors will enable synthesis of scenarios that present as opportunities or threats for the health system and the cancer control system.

This section should summarise in a table the opportunities and threats in the short-, medium- and long-term and how these dynamics are changing in the Health System. This section should also identify which of these are the key priorities for the government to address. A template for potential assessment is shown below.

5.3 Goals and Objectives for Cancer Control

When developing a strategy or a strategic plan it is important to understand the guiding values, mission and objectives of the organization (as influenced by stakeholders). This section should summarise the prevailing values and in the Health System, and set out the goals and objectives for the cancer control system. Illustrative examples of these are given below.

5.4 Strengths and Weaknesses of the Cancer Control System

This section should analyse the health system, policies, strategies, strengths and weaknesses as regards critical health system functions in relation to cancer control. The analysis should identify the strengths and weaknesses of these critical health system functions as compared with what can feasibly be achieved in the given country context.

5.4.1 Policies in Relation to Cancer Control

This section should briefly summarize the most recent versions of policies, regulations and strategies produced by the ministry of health to articulate its vision of the cancer control system, its goals and objectives, strategies to be pursued to achieve these goals and objectives and current efforts in the cancer control system development.

5.4.2 Current Performance in Relation to Aspirations

This sub-section will provide an analysis of the cancer control system achievements in relation to health system goals and objectives that have been set by the government in relation to cancer control:

- Population health (overall levels and distribution of health outcomes for cancer patients)
- Financial protection (extent of coverage for innovative treatments, out of pocket payments)
- Responsiveness and consumer satisfaction (evidence for improves user satisfaction)
- Equity (access and service coverage by key population segments)
- Efficiency (health service indicators relevant to cancer such as number of cancer beds)
- Quality and effectiveness (the extent to which evidence based interventions are used in the cancer control system)

Health system performance should be analysed by historical- and comparative-benchmarking of the country's performance along the above-listed goals and objectives. Time-series data from the EUROCARE 4 and CONCORD studies could be used to benchmark the health system performance against that of other European countries.

5.4.3 Governance, organization and regulation

To effectively discharge its stewardship function a Ministry of Health needs to gather and use intelligence to formulate overall health policy, establish policy direction, and create an appropriate regulatory environment to implement these policies. This in turn requires the development and implementation of a monitoring and evaluation function. The analysis should explore if a robust M&E system exists for

cancer control and if there is an accountable body in charge of developing and implementing cancer control plans.

5.4.4 Financing

The analysis should describe the financing of cancer control and how the finances are pooled, coverage of the population for cancer control services and an analysis on the strengths and weaknesses of the current arrangement. In particular this section should describe in detail existing financing levels for cancer, additional financing required to implement the NCCP, and the sources from which the NCCPs will be funded.

5.4.5 Resource Allocation and Provider Payment Systems

The section should describe if a resource allocation formula exists and how this is used to for cancer control to achieve equity for different geographic regions and population segments with varied socio-economic status.

The analysis will describe the provider payment systems in use for cancer care and whether these are used strategically to create incentives to enhance quality, efficiency, access, and accessibility of health services for cancer care.

This section should also describe the areas resources are allocated, for example human resources, infrastructure, screening preventive care, diagnostic and treatment technologies, and innovative drugs. Financing models should be as detailed as possible, estimating the amount needed for each element of the NCCP as well as supporting costs. For example by specifying total investment allocated for a major area of intervention such as tobacco control for a defined period of time (for example for one year or for the duration of the NCCP), with a breakdown of amounts invested in key activities that underpin this intervention such as regulatory changes, publicity campaigns, human resources to introduce and scale up individually targeted interventions aimed at behaviour change, and; pharmaceutical treatments.

5.4.6 Service Delivery

It is important to consider the implications of an NCCP on the health system as a whole; cancer services should be integrated as closely as possible with other service structures, including primary care, intensive care and palliative units. A clear framework to articulate services and improve processes for patients should be planned according to characteristics of each particular health system. As this proposition necessarily involves a multitude of different actors throughout the health system, monitoring and evaluation (M&E) systems must also be established.

The analysis of the health service delivery should capture the key changes relating to design and implementation of cancer services. In particular, the analysis in this section should ascertain the extent to which the health system is able to effectively discharge key functions in relation to cancer control: i.e., whether it is able to provide a comprehensive set of services, coordinate the journey of patients through the health system through an effective referral- and counter-referral-system and whether it is able to provide continuity of care.

5.4.7 Resource Generation

Attracting and retaining appropriately skilled human resources is critical to functioning of the cancer control system. This is particularly important for PHC based cancer services, which have traditionally been underprovided in relation to the hospital sector. The analysis should explore human resource policies for cancer control, whether a strategic plan for human resources exists, the mechanisms and incentives used to attract and retain health professionals in the cancer control system and to increase their motivation and job satisfaction.

The analysis should also identify the gaps in human resources and where human resource shortages exist.

Box 2: Strengths and Weaknesses of the Critical Health Systems Functions

	Strengths	Weaknesses
Governance, Organization and Regulation		
Monitoring and Evaluation		
Health Information Systems		
Financing		
Resource Allocation, Provider Payment Systems		
Resource Generation		

5.5 Mapping the Strengths and Weaknesses of the Cancer Control System

This section should summarise the key strengths and weaknesses, drawing on the analysis in relation to critical health system functions. It should pinpoint the resources and competences that exist in the cancer control system (for example, financial resources, human resources, information systems, and capital resources).

5.6 Elements of the Cancer Control Plan

This section should bring together SW and OT analyses and discuss how the strengths of the health system can be used to mitigate threats and capitalize on the opportunities to achieve goals and objectives through programmatic interventions.

This section should identify the key elements of the NCCP organized according to health system functions. This section of the report will elaborate in detail what needs to be done to build on existing strengths but also to address the prevailing weaknesses in the cancer control system.

As such, the report will identify key elements of the NCCP to address identified weaknesses along each of the health system elements in relation to cancer care but also elaborate the programmes (tactics) to realise the elements of the NCCP, and investment decisions for cancer control.

5.6.1 Governance and Organization

- Regulatory changes required to strengthen cancer control
- Licencing
- Accreditation
- Quality assurance and control
- Mechanisms for performance management

5.6.2 Financing

- Level of funding
- New funding
- Funding sources
- Define scope of services
- Define entitlements
- Coverage

5.6.3 Resource allocation and provider payment systems

- Areas where resources are allocated
- Rationale and Mechanisms for resource allocation
- Provider payment systems and incentives to enhance quality

5.6.4 Service Delivery

5.6.4.1 Health Education

- Key activities

5.6.4.2 Health Promotion

- Key activities

5.6.4.3 Screening

- Key activities

5.6.4.4 Primary health care

- Key activities

5.6.4.5 Inpatient care

- Key activities

5.6.4.6 National Drug Policy

- Key activities

5.6.4.7 Improvement of quality of medical services

- Key activities

5.6.4.8 Care Networks

- Key activities

5.6.4.9 Multidisciplinary Diagnosis

- Key activities

5.6.4.10 Multidisciplinary Care

- Key activities

5.6.5 Monitoring and Evaluation

- Information Systems in PHC and Hospitals
- Public health minimum data set
- Core data set for PHC and Hospitals
- Key indicators for effectiveness, efficiency, equity, and choice

5.6.6 Resource Generation

- Gaps in human resources
- Human resource planning and development
- Recruitment and retention strategies
- Clinical training
- Management training
- Continuing professional development

5.7 Implementation of the Cancer Control Plan

5.7.1 Key Milestones

The section should identify the key milestones in relation to the targets, how these will be monitored and the actions if these are not met.

5.7.2 Linkages

The section should identify the key institutional linkages that are critical to developing and implementing the NCCP.

5.7.3 Leadership and Change Management

A comprehensive change management programme is needed to underpin NCCPs. The plan should identify options on the change management approaches and the platforms needed to achieve effective change management.

5.7.4 Risks and Mitigation Strategies

As with any plan, there will be risks that will need to be addressed to ensure effective implementation of the proposed interventions. The NCCP should identify the key implementation risks and offer mitigation strategies to address these.

6. Conclusions

As national health systems in Europe struggle to find an effective and sustainable way to deal with the cancer burden, policy makers are faced with the monumental challenge of coordinating and overseeing activities which range from the promotion healthy lifestyles to palliative medicine and grief counselling. Additionally, a wide spectrum of stakeholders vigorously defend their many (and not always consistent) interests, including patients, health professionals, politicians and industry. Health system planners, meanwhile, strive to balance these factors with the tools available to them. However, the elaboration of national cancer control plans is relatively new territory within the broader field of health systems management, and the instruments to help carry out this task effectively (with appropriate attention to governance, financing, and resource provision) are still evolving.

The present study aims to contribute to this development by providing a snapshot of the current situation in Europe from a health systems perspective, while also acknowledging that changes are constantly occurring in this dynamic field—even as we write this, we are aware that other European NCCPs are under development.

Summarising the main findings we have observed a great heterogeneity in the NCCPs, which can only be partially justified by the intrinsic peculiarities and organizational aspects specific to each country and its health system, as we believe that this is also attributed to the lack of an accepted framework to aid in the formulation of a cancer control plan. In fact, a particularly striking observation arising from this exercise is that whereas the service delivery dimension is reasonably well articulated in the majority of the NCCPs, other elements, particularly financing, resource allocation and governance issues, were less defined.

Our core intention, then, is not to merely compare the existing NCCPs and highlight effective policies taken by individual countries. Rather, we aim to emphasize the importance of a thorough analysis, using a health systems approach which has been useful in evaluating other aspects of national health systems. In addition, by comparing European NCCPs side by side, we hope to increase transparency and accountability, two vital ingredients in any efficient system.

While we have endeavoured to produce a sound and thorough framework of analysis for comprehensive cancer plans, we also understand that this is only the first attempt, and that support by international bodies such as the WHO or the European Union is necessary for the most favourable policy impact. Continued research is, moreover, vital, not only for the results collected, but also in order to engage health system planners and other key stakeholders (including patients) in the development of the best roadmap to address all the requirements of a coherent national cancer plan.

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The views expressed are those of the authors.

The authors have all contributed to analysis and writing of this report and declare that they have no competing interests.

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9. Appendices

9. Appendices

9.1 Annex1: Cancer survival and cost of cancer

Table 1: Direct cost of cancer (Wilking and Jonsson 2006)

	Cancer cost as % of total health care costs
Germany (2002)	5.4%
Sweden (1996)	6.0%
Sweden (2002)	10.0%
France (1998)	5.3%
The Netherlands (1994)	4.6%

Table 2 Estimated age-standardised incidence rates (European standard) per 100 000 by site, sex and country, 2006 (Ferlay et al 2006)

	Stomach (C16)		Colon and rectum (C18–21)		Lung (C33–34)		Breast (C50)	Uterus (C53–55)	Prostate (C61)	All cancers (C00–97/C44)	
	M	F	M	F	M	F				M	F
Austria	14.3	8.8	57.6	30.9	54	22.3	91.5	29.1	134.6	444.6	294.6
Belgium	10.3	3.8	53.3	34.3	93	22.9	137.8	32.7	160.8	543.3	343.1
Cyprus	16.2	8.7	41.2	29	66.1	9.5	88.4	23.3	74.6	373.3	269.6
Czech Republic	17	8.2	94.4	46	78.9	22.9	84.8	44.8	76.1	484	346
Denmark	9.1	4.5	61	48	65	48.7	122.6	28.7	80.3	442	413.6
Estonia	33.4	17.5	50	33.9	80.3	13.2	71.1	40.5	65.3	411.1	298.5
Finland	11.8	6.8	39.2	29.4	45.8	14.7	119.8	25.4	149.7	406	314
France	12	4.5	59.8	36.8	75.5	15	127.4	22.2	133.5	527.5	329
Germany	17.6	8.5	70.2	45.1	61.2	20.8	121.2	26.4	113	451.4	333.7
Greece	18.9	8.9	31	21.3	88.7	12.7	81.8	21.3	81	423.9	259.5
Hungary	26.6	10.9	106	50.6	119.3	42.4	118	51.6	85.6	598.8	408.7
Ireland	14.7	7.6	65.2	36.9	60.2	34.1	131.4	28.8	182	513.6	382.2
Italy	22.1	11.1	52	30.3	84.7	15.6	105.3	25.1	108.4	499.7	323.6
Latvia	28.6	14.6	47	28.7	82.5	10.2	64.8	39.7	85.7	419.4	265.2
Lithuania	36.8	17.9	53.1	32.5	91.9	9.9	68.7	63.4	109.7	500.1	320.5
Luxembourg	14.8	5.4	61.9	36.1	69.8	16.3	116.9	20	93.6	440	312.5
Malta	13.7	7.7	51.5	36.2	43.9	6.5	94.5	25.7	68.8	322.8	279.5
The Netherlands	13.4	6.3	61.2	43.9	63.4	32.5	128	22.1	98.4	435	355.4
Poland	34.8	8.8	43.1	27.7	103	28.6	74.1	37.9	51	443.2	311.9
Portugal	28.9	15.4	58.9	30.9	44.5	11.7	103.5	33.1	101.2	427.8	289.4
Slovakia	25.2	10.3	87.1	42.6	71.7	11.6	69.7	40	51.2	434.4	288.4
Slovenia	27.5	11	69	36.3	75.6	22.9	87.5	42.8	70.2	438.5	319
Spain	15.9	8.4	54.4	25.4	68.3	13.8	93.6	24.5	77.2	416.9	263.4
Sweden	9.2	4.9	49.2	37.4	28.6	23.8	125.8	31.7	157.2	418.2	361.3
United Kingdom	14.3	5.7	54.9	34.8	57.1	34.6	122.2	25.2	107.3	410.5	348.9
European Union(EU25)	18.2	8.1	59	35.6	71.8	21.7	110.3	28.3	106.2	463	325.5
Iceland	14.1	6.4	50.2	36.8	40.6	45.6	121.6	27.3	140.5	429.2	383.6
Norway	11.2	5.4	66.4	51.2	53.8	33.7	109.1	34.1	133.2	458.7	381.5
Switzerland	16.4	3.9	79.1	55.6	52.7	26.2	126.5	29.2	137	493.6	369
EEA and Switzerland	18.1	8	59.4	36.1	71.3	21.9	110.5	28.3	106.9	463.4	326.7
Bulgaria	25.5	13.6	49.6	31.3	67.3	11.5	74	53	36	336.6	269
Romania	30.6	13	40.7	25.1	81	15.4	61.2	64.1	32.2	371.8	279.1
Albania	59.4	21.5	13.6	21.4	95	26.2	82.4	22.2	62.1	444.7	312.1
Belarus	45.1	20.4	42.8	29	86.5	6.7	55.5	39.3	38	380.7	251.4
Bosnia Herzegovina	37.8	14.4	34.6	27.3	76	17.5	79	43.8	42	369.4	287
Croatia	27.5	8.6	57	36.9	69.3	13.9	79.4	25.9	67.8	421.3	244.4
Macedonia	37.3	16	49.4	30	71.8	8.9	85.4	49.1	31.9	363	280.2
Republic of Moldova	28.3	14.4	38.7	26.7	63.7	12.5	51.6	45	18.7	331.2	238.3
Russian Federation	47.8	21.1	46.5	33.9	92.7	11.2	67.3	39.2	30.1	389	261.9
Serbia and Montenegro	16.9	5.9	41	30.4	61.5	17.3	69.2	60	32.3	300.1	268.5
Ukraine	37.1	15.4	41.7	27	74.6	9.5	53.3	40.9	26.7	333.6	227.4
Europe	24.8	11.6	55.4	34.6	75.3	18.3	94.3	33.5	86.7	439.7	303

Table 3: Five-year age-adjusted relative survival (%) for cancers diagnosed between 2000–02 (Verdecchia et al 2007)

	Stomach		Colorectum		Lung		Soft-tissue		Skin melanoma		Breast		Cervix		Corpus uteri		Prostate	
	RS	95% CI	RS	95% CI	RS	95% CI	RS	95% CI	RS	95% CI	RS	95% CI	RS	95% CI	RS	95% CI	RS	95% CI
Austria	29.2	26.9–31.6	59.3	57.8–60.9	14.1	13.0–15.3	57.5	51.1–64.7	83.3	80.8–85.9	81.4	79.9–82.8	64.2	60.4–68.2	76.1	73.1–79.2	88.9	87.6–90.3
Belgium	32.7	30.2–35.4	60.7	59.5–62.0	16.3	15.4–17.2	65.3	59.5–71.7	81.4	78.8–84.2	79.7	78.6–80.9	66	62.6–69.6	79.5	76.9–82.1	NA	NA
Czech Republic	NA	NA	45.2	41.0–49.9	NA	NA	NA	NA	75.1	66.6–84.7	68.9	62.9–75.4	59.8	53.0–67.5	80.5	70.4–92.1	58.4	50.1–68.0
England	16.9	16.3–17.6	51.8	51.4–52.2	8.4	8.1–8.6	57.5	55.4–59.6	84.8	84.0–85.5	77.8	77.4–78.2	58.6	57.3–59.9	75.7	74.7–76.8	NA	NA
Finland	27.3	24.8–29.4	59.4	57.8–61.1	9.2	8.2–10.3	58.5	53.1–64.4	84.8	82.0–87.1	85.7	84.4–87.0	65.8	60.9–71.0	79.8	77.3–82.4	84.3	82.7–85.9
France *	20.7	13.9–30.9	59.9	55.5–64.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Germany	31.4	25.3–39.1	61.2	57.7–65.0	14.7	12.1–17.8	NA	NA	89.4	82.1–97.3	78.2	74.5–82.1	55.5	47.4–65.1	82.7	75.0–91.2	85.3	80.7–90.2
Iceland	NA	NA	58.9	52.6–65.9	16.8	12.8–22.2	NA	NA	83.6	72.1–96.9	93.4	87.4–99.8	70.6	61.1–81.6	69.7	56.5–86.1	84.4	79.6–89.4
Ireland	18.8	16.5–21.5	54.3	52.6–56.0	10.9	9.8–12.2	60.2	52.4–69.3	85.9	83.1–88.8	76.2	74.3–78.2	63.8	58.8–69.3	77	72.3–81.9	NA	NA
Italy	33.2	32.1–34.3	59.4	58.6–60.1	13.4	12.8–14.0	61.8	58.3–65.6	85.3	84.0–86.6	83.7	83.1–84.4	67	64.7–69.4	77.4	75.7–79.0	85	83.5–86.4
Malta	NA	NA	51.5	45.8–57.9	4.6	2.7–7.8	61	49.3–75.5	94.8	84.5–106.4	76	70.7–81.8	46.5	32.5–66.6	76.5	66.7–87.7	NA	NA
the Netherlands	20.1	18.1–22.4	58.5	57.1–59.9	12.9	12.1–13.8	59.8	54.4–65.6	90	87.9–92.1	83.1	81.8–84.3	69.2	64.8–73.9	79.3	76.2–82.6	81.7	79.3–84.2
Northern Ireland	18.9	15.6–22.8	54.5	52.1–57.0	10.7	NA	59.2	49.2–71.3	91.4	87.5–95.5	79.5	77.0–82.1	63.5	56.6–71.2	70.2	64.4–76.6	NA	NA
Norway	24.7	22.1–27.5	59.5	58.2–60.9	11.2	10.3–12.3	61.8	54.2–70.6	86.8	85.0–88.6	84.1	82.6–85.5	67.5	63.7–71.4	86.1	83.2–89.1	79	77.5–80.6
Poland	20	17.7–22.6	46	44.0–48.0	14	12.8–15.3	60.4	51.5–70.8	65.8	61.5–70.4	73.9	71.7–76.1	56	52.6–59.5	74.5	70.3–78.8	70.7	66.5–75.2
Scotland	16.6	14.9–18.6	54.1	52.8–55.4	8.2	7.5–8.9	55.9	49.3–63.3	90.7	88.6–93.0	77.3	76.0–78.6	61	57.3–65.0	76.6	73.1–80.1	71	68.8–73.3
Slovenia	23.2	20.5–26.2	50.5	48.2–53.0	9.9	8.6–11.3	64	53.7–76.2	79.2	75.0–83.7	75.3	72.7–78.1	65.2	60.8–69.9	78.7	74.3–83.3	63.3	59.2–67.6
Spain	31.8	25.9–39.2	61.5	57.7–65.5	12.2	10.1–14.8	50.7	35.0–73.5	85.9	79.0–93.5	82.8	79.8–85.8	60.4	48.6–75.0	73.6	66.4–81.5	NA	NA
Sweden	21.5	19.8–23.5	59.8	58.8–60.9	13.9	13.0–14.9	62.1	58.2–66.3	90.3	89.1–91.5	86.3	85.4–87.2	66.7	63.8–69.6	83.9	82.2–85.7	82.5	81.5–83.6
Switzerland	25.6	21.9–29.8	63.8	61.4–66.2	15.3	13.6–17.2	72	61.9–83.7	89.7	87.1–92.4	84.5	82.6–86.5	66.8	60.0–74.5	79.2	74.5–84.3	87.3	84.6–90.1
Wales	18.3	15.8–21.1	53.3	51.6–55.1	10.4	9.1–11.8	58.6	51.4–66.8	78.3	74.8–81.9	78.4	76.7–80.1	52.6	47.8–57.8	75.7	71.7–79.9	71.8	69.1–74.5
EUROCARE –4 mean	24.9	23.7–26.2	56.2	55.3–57.2	10.9	10.5–11.4	61.2	58.3–64.2	86.1	84.3–88.0	79	78.1–80.0	60.4	57.7–63.2	78	76.2–79.9	77.5	76.5–78.6
US SEER -13 registries	25	23.8–26.2	65.5	64.9–66.1	15.7	15.3–16.1	65.1	62.8–67.5	92.3	91.5–93.1	90.1	89.6–90.5	65.8	64.1–67.6	82.3	81.2–83.4	99.3	98.9–99.8

RS: relative survival. NA: not available (due to missing data in one or more age classes impeding the age standardisation).
SEER: Surveillance, Epidemiology, and End Results. *Data from France was represented by the digestive cancer registry of Côte d'Or.

Table 4: Five-year relative survival (%, age-standardised to International Cancer Survival Standard (ICSS) weights* with 95% CIs for adults (aged 15-99 years) diagnosed with cancer of the breast (women), colon, rectum, or prostate during 1990 – 94 and followed up to Dec 31, 1999: Country level (Coleman et al 2008)

		Breast	Colon		Rectum		Colorectum		Prostate
		(95% CI)	(95% CI)		(95% CI)		(95% CI)		(95% CI)
		Women	Men	Women	Men	Women	Men	Women	
Africa	Algeria (Sétif)	38.8 (31.4–46.2)R	11.4 (0.7–40.9)R	30.6 (9.5–56.1)R	25.9 (11.4–43.7)R	18.2 (6.6–34.6)R	22.5 (10.6–37.7)R	22.6 (11.2–36.7)R	21.4 (8.7–38.9)R
America	Brazilian	58.4 (52.7–64.6)	33.1 (24.2–45.3)	32.7 (26.1–40.8)	49.3 (34.8–69.8)	38.4 (27.3–53.9)	47.3 (37.5–59.6)	43.5 (35.7–53.1)	49.3 (43.6–55.8)
(Central and	registries								
South)	Cuba	84.0 (82.9–85.2)	59.3 (55.8–63.1)	61.4 (58.3–64.5)	59.2 (55.1–63.7)	62.8 (58.6–67.4)	59.5 (56.8–62.5)	62.0 (59.5–64.6)	69.7 (67.1–72.3)
America	Canadian registries	82.5 (81.9–83.0)	56.1 (55.1–57.2)	58.7 (57.7–59.7)	53.1 (51.5–54.6)	58.7 (57.0–60.4)	55.3 (54.4–56.2)	58.9 (58.0–59.8)	85.1 (84.4–85.7)
(North)	US registries	83.9 (83.7–84.1)	60.1 (59.6–60.5)	60.1 (59.7–60.5)	56.9 (56.3–57.5)	59.8 (59.2–60.4)	59.1 (58.8–59.5)	60.2 (59.8–60.5)	91.9 (91.7–92.1)
Asia	Japanese registries	81.6 (79.7–83.5)	63.0 (61.3–64.8)	57.1 (55.5–58.8)	58.2 (55.9–60.5)	57.6 (55.2–60.1)	61.1 (59.7–62.5)	57.3 (55.9–58.6)	50.4 (46.3–54.9)
Europe	European registries	73.1 (72.9–73.4)	46.8 (46.3–47.2)	48.4 (48.0–48.8)	43.2 (42.7–43.7)	47.4 (46.9–48.0)	45.3 (45.0–45.6)	48.1 (47.7–48.4)	57.1 (56.7–57.6)
	Austria (Tirol)	74.9 (71.9–78.1)	57.0 (51.5–63.0)	59.3 (54.3–64.7)	45.8 (39.1–53.8)	45.2 (37.6–52.8)R	52.7 (48.2–57.6)	55.1 (50.8–59.7)	86.1 (82.9–89.4)
	Czech Republic	62.9 (58.9–67.1)	37.7 (33.0–43.0)	37.6 (33.3–42.5)	29.3 (25.2–34.1)	39.1 (33.8–45.2)	33.8 (30.5–37.6)	38.3 (34.9–42.0)	50.7 (44.4–58.0)
	(West Bohemia)								
	Denmark	73.6 (72.5–74.7)	44.7 (42.7–46.7)	48.6 (46.8–50.4)	43.4 (41.2–45.6)	45.9 (43.6–48.3)	44.2 (42.7–45.7)	47.7 (46.3–49.2)	38.4 (36.3–40.6)
	Estonia	61.3 (57.9–64.8)	38.5 (33.7–44.1)	39.1 (35.3–43.2)	33.6 (28.4–39.7)	30.2 (26.0–35.1)	36.4 (32.8–40.4)	35.5 (32.6–38.6)	56.5 (52.3–60.9)
	Finland	80.2 (79.0–81.4)	54.6 (51.6–57.8)	54.7 (52.5–57.1)	49.8 (46.8–53.0)	52.6 (49.7–55.6)	52.5 (50.4–54.7)	54.0 (52.2–55.8)	62.9 (60.6–65.2)
	French registries	79.8 (78.2–81.4)	57.4 (54.4–60.7)	60.1 (57.2–63.2)	52.8 (49.3–56.7)	63.9 (60.1–67.8)	55.6 (53.3–58.1)	61.5 (59.2–64.0)	73.7 (70.5–77.1)
	Germany (Saarland)	75.5 (73.3–77.8)	52.0 (48.2–56.0)	56.2 (52.9–59.7)	47.8 (43.0–53.1)	52.5 (48.1–57.3)	50.1 (47.2–53.2)	55.0 (52.3–57.9)	76.4 (72.7–80.4)
	Iceland	79.0 (73.5–85.0)	48.1 (39.0–59.3)	54.9 (45.2–66.6)	52.1 (31.9–71.4)R	48.4 (31.7–64.6)R	49.5 (41.0–59.9)	54.0 (45.9–63.6)	69.7 (62.2–78.1)
	Ireland	69.6 (66.1–73.3)	49.1 (44.0–54.8)	48.5 (43.7–53.8)	41.1 (35.0–48.2)	52.5 (44.6–60.3)R	46.0 (42.0–50.4)	50.0 (45.9–54.5)	62.8 (58.0–68.0)
	Italian registries	79.5 (78.8–80.3)	52.4 (51.1–53.8)	53.8 (52.6–55.0)	47.4 (45.7–49.2)	50.4 (48.6–52.3)	50.7 (49.7–51.8)	52.7 (51.7–53.8)	65.4 (63.7–67.2)
	Malta	73.5 (66.7–81.1)	38.0 (25.9–50.7)R	58.0 (46.5–72.4)	34.7 (20.8–49.9)R	52.5 (31.9–71.4)R	35.7 (27.0–47.1)	55.5 (46.1–66.8)	44.3 (32.3–56.9)R
	The Netherlands registries	77.6 (76.6–78.6)	52.7 (50.1–55.4)	55.4 (53.2–57.7)	55.0 (51.6–58.6)	54.5 (51.3–57.9)	53.6 (51.5–55.7)	55.1 (53.3–57.0)	69.5 (67.2–71.9)
	Norway	76.3 (75.1–77.6)	50.8 (48.7–53.0)	54.4 (52.5–56.3)	51.3 (48.9–53.9)	56.9 (54.3–59.6)	51.1 (49.5–52.8)	55.3 (53.8–56.9)	63.0 (60.9–65.1)
	Polish registries	62.9 (60.6–65.3)	28.5 (25.3–32.1)	30.9 (28.0–34.2)	28.4 (24.7–32.7)	30.2 (26.7–34.1)	28.6 (26.1–31.3)	30.6 (28.3–33.0)	37.1 (33.0–41.6)
	Slovakia	57.9 (55.9–59.9)	40.1 (37.7–42.7)	44.1 (41.7–46.7)	27.6 (25.5–29.8)	32.3 (29.9–34.8)	34.0 (32.3–35.8)	38.7 (37.0–40.5)	45.7 (42.7–49.0)
	Slovenia	66.3 (63.8–68.9)	37.3 (33.5–41.5)	39.8 (36.3–43.6)	34.0 (30.5–38.0)	35.6 (32.1–39.5)	35.7 (33.1–38.5)	37.7 (35.3–40.4)	43.7 (39.4–48.4)
	Spanish registries	77.7 (76.4–79.0)	54.2 (52.2–56.3)	56.3 (54.2–58.4)	50.0 (47.7–52.4)	51.8 (49.1–54.6)	52.5 (51.0–54.1)	54.7 (53.1–56.4)	60.5 (57.6–63.6)
	Sweden	82.0 (81.2–82.7)	52.5 (50.9–54.2)	54.8 (53.3–56.3)	53.0 (51.2–55.0)	58.2 (56.3–60.2)	52.8 (51.6–54.1)	56.2 (55.0–57.4)	66.0 (64.7–67.3)
	Swiss registries	76.0 (74.3–77.7)	..	..	..	..	..	..	..
	UK	69.7 (69.4–70.1)	43.5 (42.9–44.1)	44.4 (43.8–45.0)	40.6 (39.9–41.3)	45.3 (44.5–46.1)	42.3 (41.8–42.8)	44.7 (44.3–45.2)	51.1 (50.4–51.8)
	UK - England (national)	69.8 (69.5–70.2)	43.4 (42.8–44.1)	44.3 (43.7–45.0)	40.4 (39.6–41.2)	45.4 (44.6–46.3)	42.2 (41.7–42.7)	44.7 (44.2–45.3)	50.9 (50.1–51.7)
	UK - Northern Ireland	72.0 (68.9–75.3)	47.3 (42.1–53.0)	49.0 (44.3–54.3)	48.2 (41.6–55.8)	43.8 (37.0–51.9)	47.8 (43.7–52.3)	47.8 (43.8–52.2)	54.0 (48.7–59.9)
	UK - Scotland	70.6 (69.5–71.8)	45.9 (44.0–47.9)	47.8 (46.1–49.6)	42.3 (39.9–44.9)	46.9 (44.4–49.6)	44.6 (43.1–46.2)	47.7 (46.2–49.2)	54.2 (52.0–56.5)
	UK - Wales	67.1 (65.8–68.4)	39.9 (37.5–42.6)	38.0 (35.7–40.4)	39.5 (36.8–42.3)	41.9 (38.8–45.2)	39.8 (38.0–41.8)	39.3 (37.5–41.3)	47.9 (44.9–51.1)
Oceania	Australia (national)	80.7 (80.1–81.3)	57.8 (56.8–58.8)	57.7 (56.7–58.6)	54.8 (53.6–56.1)	59.2 (57.8–60.6)	56.7 (55.9–57.5)	58.2 (57.4–58.9)	77.4 (76.6–78.2)

R: raw (not age-standardised) survival estimate.

9.2 Annex 2: Analytical framework

- **Key challenges identified in the plan**
- **Aims and objectives**
- **Governance, arrangement**
  - Macro-organization structures
  - Governance
  - Accountability for delivering plan
  - Registry and surveillance
- Financing
  - Current funding sources for cancer care as indicated in the plan
  - Propose funding to implement in the plan including additional funding
  - Allocation of the fund
    - New technology
    - Pharmaceutical
    - Human resources
    - Infrastructure
    - Population based prevention and promotion
    - Registry and surveillance
    - Research
  - Cost sharing
- Service delivery
  - Public health interventions (prevention, screening, education, promotion)
    - Prevention
      - Tobacco
      - Alcohol
      - Unhealthy diet
      - Physical activity
      - Exposure to sunlight
      - Occupation and environment
    - Screening
      - Breast cancer
      - Cervical cancer
      - Colon cancer
      - Others
    - Other public health interventions
  - Structure
    - Proposed organisational changes of service delivery
    - Multi-disciplinary teams
    - Development of networks
  - Care
    - Availability of diagnostic and general treatment
    - Availability of palliative and rehabilitation care
    - Availability of innovative care (technologies and drugs)
    - Evidence-based guidelines
  - Supportive care provision (non-professional)
  - Quality
    - Accreditation of providers
    - Systems for quality assurance and control
      - General care
      - Palliative and rehabilitation care
  - Human resource
    - Education and continuous training to health care providers
      - General care
      - Palliative and rehabilitation care
  - Supporting patients and improving patient knowledge on cancer
  - Cancer research
- Specific targets (Indicators of success, deadlines)

9.3 Annex 3: Summaries of National Cancer Control Programmes

Table 1 List of National Cancer Control Programmes identified

Categories	Country	Name of NCCP	year
EU27	Austria	(not yet launched)	
EU27	Belgium	National Cancer Plan	2008
EU27	Bulgaria	(Information not available)	
EU27	Cyprus	(not yet launched)	
EU27	Czech Republic	(not yet launched)	
EU27	Denmark	National Cancer Plan II	2005
EU27	Estonia	National Cancer Strategy 2007-2015	2007
EU27	Finland	(not yet launched)	
EU27	France	Cancer: a nation-wide mobilization plan	2003
EU27	Germany	(not yet launched)	
EU27	Greece	(not yet launched)	
EU27	Hungary	Hungarian National Cancer Control Programme	2006
EU27	Ireland	A Strategy for Cancer Control in Ireland	2006
EU27	Italy	Per un Piano Oncologico Nazionale	2006
EU27	Latvia	(not yet launched)	
EU27	Lithuania	National Cancer Prevention and Control Programme 2003 - 2010	2003
EU27	Luxembourg	(not yet launched)	
EU27	Malta	A National Cancer Plan for the Maltese Islands	2007
EU27	Netherlands	National Cancer Control Programme, Part 1 NPK Vision and Summary 2005 - 2010	2004
EU27	Poland	National Programme against cancer	2005
EU27	Portugal	Plano Nacional de Prevenção e Controlo das Doenças Oncológicas 2007/2010	2008
EU27	Romania	(Information not available)	
EU27	Slovakia	(not yet launched)	
EU27	Slovenia	(not yet launched)	
EU27	Spain	Estrategia en Cancer del S.N.S	2006
EU27	Sweden	(not yet launched)	
EU27	United Kingdom - England	Cancer Reform Strategy	2007
EU27	United Kingdom - Scotland	Cancer in Scotland: Action for change	2001
EU27	United Kingdom - Northern Ireland	Regional Cancer Framework: A Cancer Control Programme for Northern Ireland	2007
EU27	United Kingdom - Wales	Designed to Tackle Cancer in Wales	2006
Acceding state	Croatia	(not yet launched)	
Acceding state	Turkey	(not yet launched)	
European Economic Area	Norway	National Cancer Strategy 2006-2009	2006
European Economic Area	Switzerland	National Cancer Programme Switzerland 2005 - 2010	2005

Table 2 Governance and organizational arrangements at macro level

	Macro-organization structures	Governance	Registry and surveillance
Belgium	Create a network and the specialisation of the eight centres of paediatric oncology	The Reference Cancer Centre will be responsible for implementation of the Cancer Plan	Create a Royal Decree of the Cancer Registry Foundation as a recognised body
Denmark	Ensure coordination of the local plans		Ensure that the national registers, patient administration systems and clinical databases cover the whole cancer area.
England	Cancer networks will play a central role, reporting to PCTs in commissioning cancer services	Improve the roles of National Cancer Director to ensure maintaining progress on cancer and ensuring appropriate planning for the future.	New National Cancer Intelligence Network (NCIN) is being established to bring together relevant stakeholders and to act as a repository of cancer data.
Estonia		The Ministry of Social Affairs is responsible for coordination and achieving the goals of national cancer strategy	Enhance the Estonian Cancer Registry
France	Ensure all regions will be covered by regional oncology networks	Set-up a national project task force to coordinate and monitor plan implementation	Support cancer registers and develop the national epidemiology system to cover 15% of the French population
Hungary			Arrange for ongoing surveillance and monitoring of the population's health. Evaluate the operation of the National Cancer registry.
Ireland		Develop a third National Cancer Forum to develop and implement of cancer services	Develop a cancer surveillance system that will build on the existing system of cancer registration. Ensure that a minimum national dataset should be collected for all cases of cancer
Italy	Introduce national and regional cancer network	Introduction of Commissione Oncologica Nazionale (National Oncology Commission) to assess and to implement cancer plan	Consolidate the existing Tumour Registers (TR). Increase the information content of the existing TR and improve the use of the TR data
Lithuania		Vilnius University Institute of Oncology and Clinics of Kaunas University of Medicine have responsibilities for providing cancer care	Cancer data collected by the Lithuanian Cancer Registry
Malta		The design and consultation of the National Cancer Plan needs to be initially inspired and later coordinated by a National Advisory Committee.	Enhance National Cancer Registry
Netherlands			Cancer registry will be able to collect the additional data required for the assessment of the cancer guidelines
Northern Ireland	Develop Cancer Network to make plans and delivery of cancer services	Each Local Commissioning Group should have established a professional Cancer Lead post to provide local strategic leadership in developing cancer services.	Funding arrangements to support the work of the Registry in the future.
Norway		The Directorate for Health and Social Affairs has been given national responsibility for coordination of the further follow-up of the Cancer Strategy	
Poland		Establish an advisory body for implementing the programme "Cancer Control Council"	Improve in the cancer data system
Portugal		Create five regional oncologic commissions (COR) to coordinate between units of care, develop the local and regional initiatives for implementing the strategy	Promote the oncologic register for enhancing national and regional oncologic register.

Table 2 Governance and organizational arrangements at macro level *continued*

	Macro-organization structures	Governance	Registry and surveillance
Scotland		Established Scottish Cancer Group for providing leadership, direction, advice, and guidance for cancer service	Update the strategic programme for modernising information management and technology in the NHS Scotland. Set up an Information Task Group to develop better access to the information needed by people with cancer and their families.
Spain		Ministry of Health and Consumption develop cancer related policies as a joint effort of Ministry of Health and Consumption (Ministerio de Sanidad y Consumo) and regional government	
Switzerland		Progress on the targets for strategic framework will be monitored and performance managed by the Assembly Government's Department of Health and Social services' Regional Offices.	Improve the cantonal register of cancer. Create a national cancer information system. Improve epidemiological monitoring of cancer.
Wales			

Table 3 Macro-level financing for cancer care

	Current funding sources for cancer care as indicated in the plan	Propose funding to implement in the plan including additional funding
Belgium		Allocate of 380 million Euros to cover 2008-2010
Denmark		
England	England spends 4.35 billion Pounds a year for cancer care, additional spending on cancer came to 693 million Pounds over a three year period from 2000.	Add 70 million Pounds to overall costs per year as a baseline. Improve cost-effectiveness of cancer care delivery. Cancer programme costs are at least 4.35 billion Pounds a year
Estonia		The action plan of the strategy is financed from state budget funds by the Ministry of Social Affairs, Estonian Health Insurance Fund and by donations.
France		100 million Euros are allocated as of 2003, and are forecast to reach 640 million Euros in 2007. Defining a funding mechanism for cancer care to encourage best practices
Hungary		
Ireland		
Italy		
Lithuania	NCCP is funded by the National Budget of Republic of Lithuania; Funds of National Investment Program; Stock Budget of Compulsory Health Insurance	
Malta		
Netherlands	The approximate annual cost of cancer care amounts to s 1.5 billion Euro	NCCP should be financed by the reallocation of existing resources and from efficiency gains.
Northern Ireland	Allocated capital funding for cancer services, with a total of approximately 73 million Pounds for the period 1996/97 to 2004/05	
Norway	the National Cancer Plan (1999 – 2003) contributed with just over 2 billion Norwegian Krone to a public strengthening of cancer-related areas	The need for additional, extraordinary funding will be assessed continuously in the normal budget processes.
Poland		3 million Polish ZlotyZloty will be funded for implementing cancer programme from the national budget and other resources
Portugal		
Scotland		
Spain		
Switzerland		The financial bottlenecks are considerable. Cost savings in current expenditure have an important role.
Wales		

Table 4 Resource allocation for cancer care

	New technology	Pharmaceutical	Human resources	Population based prevention and promotion	Registry and surveillance	Research
Belgium	Ensure funding for the diagnostic and therapeutic equipment for oncological radiotherapy and imaging	Reimburse of certain medications such as Avastin™	Fund multidisciplinary liaison teams for children in the palliative care		Finance 3 million Euros per year for developing cancer database to improve quality of cancer data	Allocate 5 million Euros for translational researches.
Denmark	Establish 300 million Danish Krone loan funds for CT and MRI scanners			Allocate a 73 million Danish Krone for prevention of overweight in children		Funds should be allocated to both clinical research units and centres of expertise
England	Invest over 500 million Pounds in additional and replacement equipment for cancer	Future growth in spending on cancer drugs approximately 60-80 million Pounds per annum.	Invest 5 million Pounds for increasing number of radiotherapists	Fund to ensure that local stop smoking services. Increase the funding available for awareness programmes of sun protection		
Estonia						
France	Public and private funding for expensive and innovative medication and facilities		Invest to increase number of cancer professionals	Fund stop-smoking media campaigns		Fund cancer research with new and strong impetus
Hungary						
Ireland						Fund for cancer research at national level
Italy	Allocate 198 million Euros to replace super-obsolete radiotherapy equipments	Invest in drugs with a careful cost-benefit analysis				
Lithuania						
Malta	Invest in extra equipment for diagnosis and treatment such as CT and MRI scanners		Invest in training and support especially in palliative care			
Netherlands			Provide supplemental educational programmes for cancer specialists and nurses	Fund of the various screening programmes		Investment in research in order to enhance the effectiveness of prevention activities.
Northern Ireland					Address the funding arrangements that will support the work of the Registry in the future.	
Norway			Invest heavily in strengthening nursing and care services			Ongoing strategic investment in cancer research
Poland						
Portugal						
Scotland	Additional investment in new imaging equipment to aid cancer diagnosis.		Plan investment in services and staff on the basis of regional clinical need	Allocate 100 million Pounds to encourage healthy diet		Research funding to improve the palliative care

Table 4 Resource allocation for cancer care *continued*

	New technology	Pharmaceutical	Human resources	Population based prevention and promotion	Registry and surveillance	Research
Spain	Additional investment in new imaging equipment to aid cancer diagnosis.		Investment in promotion of educational campaigns and training			Investment in support of research groups
Switzerland	Establish a funding system for the acquisition of new technologies and treatments		Secure the funding of palliative care.	Allocate 18 million Swiss Francs for tobacco control	1.4 million Swiss Francs for setting up a national centre for cancer epidemiology	Allocate Swiss Francs 50 million for cancer research
Wales	Funding for a new state-of-the-art PET scanning facility					

Table 5 Cancer prevention – tobacco control

	Smoking free	Smoke cessation	Education	Taxation
Belgium	Ban smoking in cafés and tobacco product vending machines	Reimbursement of counselling sessions to help quitting smoking		
Denmark	Completely smoke-free environments at workplaces and in public spaces	Expand publicly financed smoking cessation programmes for the population	Conduct information campaigns among the population at schools	Set tobacco levies as high as possible within the tax policy framework.
England	Completely smoke-free environments in all enclosed workplaces and public places	Widen access to nicotine replacement therapy products to support smokers to quit	Education and communications campaigns on stop smoking	Using tax to maintain the high price of tobacco
Estonia			Reduce the percentage of children smoking	
France	Ensure smoke-free in public spaces	Urge pregnant women to quit smoking by providing access to special detoxification programs	Launch “No-smoking in Schools" campaign. Ban on tobacco-product advertising	Consider how to overhaul tobacco-product taxation
Hungary	Undertake activities in order to control smoking	Put in place effective quit smoking programmes		
Ireland	Ban on smoking in indoor workplaces	Provide nicotine replacement therapy for free to all medical card holders.		Increase duty on cigarettes each year above the rate of inflation
Italy	Protection from second-hand smoke in public places and working environments	Develop programs for smoking detoxification in working environments	Strengthen educational interventions in schools and public places	Enhance fiscal and pricing policies on tobacco
Lithuania			Promote stop smoking by media campaign	
Malta	Sustain a smoke-free indoor environment other than the workplace or public places	Encourage the cessation of smoking through campaigns such as Quit & Win campaign	Strengthen educational interventions in schools and public places	Sustain annual increases in tobacco tax at above the rate of inflation
Netherlands		Implementation of effective interventions for giving up smoking	Mass media campaigns against smoking	Increase duty by at least 50 cents every two years
Northern Ireland	Smoke-free workplaces and public spaces	Increase provision of smoking cessation services	Reduce smoking levels in younger people as part of an overall programme of lifestyle skills.	
Norway	Prevention of cancer related to tobacco use	Develop a national strategy plan for smoking cessation	Ensure stop smoking programmes, educational programmes in schools,	
Poland	Develop primary prevention including stop smoking			
Portugal	Reinforce of the legislation about protection of the non-smokers in public spaces	Support actions of smokers who wish to give up smoking	Reinforce of the information about the risk of tobacco consumption	Increase tax on sales of tobacco
Scotland	Reduce smoking in public places	Enhancing smoking cessation support programme with nicotine replacement therapy	Provide health education to shift attitudes and change behaviour on smoking	
Spain	Ensure compliance with valid regulations for smoking in public			Promote legal action to increment tobacco price
Switzerland	Promote smoke-free environment for non-smokers everywhere and at any time	Motivate smokers to quit smoking	A nationwide ban on tobacco advertising, logos, and brand names	
Wales	Promote smoke-free environments eliminating smoking in public places	Expand smoking cessation services.	Raise public awareness of the health risks of smoking	

Table 6 Cancer prevention – other interventions

	Unhealthy diet - fruit and vegetable intake	Unhealthy diet - education and promotion	Physical activity	Alcohol	Exposure to sunlight	Occupation and environment
Belgium						
Denmark	Ensure availability of fruit and vegetables at workplaces	Restrict on the marketing of sweets, soft drinks and fatty and sweet foods	Introduce exercise policies at workplaces and in schools	Set high levies on alcoholic products. Raise the minimum age for purchasing alcohol	Intensify information to the public concerning healthy sun habits	
England		Introduce new nutritional standards in schools	Improve school children's sport activity.	Increase the number of people drinking within sensible drinking guidelines	Increase the funding available for awareness of sun protection programmes	
Estonia		Promote healthful and safe food choice	Increase physical activity	Reduce alcohol consumption	Reduce exposure to UV-radiation	Reduce cancer risks in work and living environment.
France	Launch a campaign to increase fruit and vegetable intake	Develop specific initiatives to promote nutritional health		Help people put an end to alcohol abuse	Develop melanoma prevention initiatives	Improve the involvement of occupational health services in cancer prevention
Hungary		Promote the development of healthy dietary habits	Promote active physical exercise on a daily basis and physical education at school.	Enhance activities aimed at preventing people from alcohol abuse	Enhance activities aimed at preventing people from excessive sunbathing	Achieve decrease in the proportion of environmentally harmful factors
Ireland	Identify affordability and lack of accessibility to fruit and vegetables	Raise awareness of the links between diet and cancer	Implement promoting physical activity	Reduce the consumption of alcohol	Reduce exposure to ultraviolet radiation, regulate sun bed use	Aware radon measurements
Italy		Develop educational activity for children on nutrition	Increase the time allocated to children and adolescents' physical activity	Promote campaigns to inform on the damages deriving from alcohol.	Promote avoidance of unnecessary exposure to sunlight	Promote control of carcinogens
Lithuania		Enhance the right eating habits by media campaign				
Malta	Promotion campaigns to encourage people to eat more fruit and vegetables.	Promote creative healthy cooking at the community level	Promote campaigns in the participation in sport and physical activity			
Netherlands	Ensure adequate fruit and vegetables intake	Endure healthier range of snacks, drinks, and meals	Mass media campaigns taking an adequate amount of exercise	Mass media campaigns to reduce alcohol use	Mass media campaigns promote sensible sunbathing	
Northern Ireland	Increase fruit and vegetable consumption using vouchers	Improve the nutritional status of school meals	Encourage people to live more active lives		Develop a revised skin cancer/melanoma prevention programme	
Norway		Improve diet in the nation	Prevent cancer by improve physical activity	Prevent cancer related to alcohol	Prevent cancer by radiation protection	Evaluate measures against radon inside buildings
Poland		Develop prevention as a means against improper nutrition				
Portugal		Promote improving eating habits				Promote the information of the risk of environmental cancer
Scotland	Double the average consumption of fruit and vegetables	Reduce the proportion of fat and salt intake. Double the consumption of oily fish	Raise levels of regular physical activity	Achieve a reduction in excess drinking levels for adults and young people	Promote campaigns warning the risks of unnecessary exposure to UV-radiation	Establish to maintain a watching brief of Chemo-prevention of cancer

Table 6 Cancer prevention – other interventions *continued*

	Unhealthy diet - fruit and vegetable intake	Unhealthy diet - education and promotion	Physical activity	Alcohol	Exposure to sunlight	Occupation and environment
Spain	Promote population consuming at least 5 portions of fruits and vegetables	Reduce energy intake from saturated fats	Increase physical activity	Promote lower alcohol intake among the young	Reduce levels of exposure to UV radiation	Assess environmental exposure to carcinogens
Switzerland	Promote eating fruit and vegetables	Increase range and availability of healthy foods and meals	Promote everyday exercise for adult and children	Reduce the number of people with high-risk alcohol consumption	Campaigns about risk of skin cancer. Protection against sunlight in schools	Ensure that fewer people develop job-related cancers
Wales		Encourage healthy eating	Encourage physical activity	Promote sensible drinking	Encourage sun protection behaviours	Develop workplace health initiatives

Table 7 Cancer screening

	Breast cancer		Cervical cancer		Colon cancer		others
	target group	frequency	target group	frequency	target group	frequency	target group
Belgium	(Yes, but not stated specific age group in the NCCP)	–	25–64 years (vaccination to girls 12-18 years)	every third year	–	–	Screening of genetic predisposition to cancer
Denmark	50–69 years	every second year	30–59 years	every third year	–	–	intestinal cancer
England	47–73 years	every third year	25–49 years (50–64 years) (vaccination to girls 12-18 years)	every third year very five year)	–	–	Bowel cancer. Trial for lung, prostate, and ovarian cancer, Genetic services
Estonia	50–59 years	every second year	30–59 years	in a five years interval	–	–	Prostate, intestine and lung cancer
France	50–74 years	–	25–69 years	–	(to be developed)	–	melanoma
Hungary	45–65 years	every second year	25–65 years	every third year	50–70 years	every second year	oral cavity screening, prostate gland screening, skin screening
Ireland	50–69 years	every second year	25–60 years	in a five years interval	50–74 years	–	prostate cancer screening (under review)
Italy	50–69 years	every second year	25–64 years	every third year	50–74 years	–	–
Lithuania	50–64 years	–	35–60 years	–	–	–	–
Malta	50–69 years	–	(under review)	–	(under review)	–	–
Netherlands	(Yes, but not stated specific age group in the NCCP)	every second year	(Yes, but not stated specific age group in the NCCP)	–	–	–	–
Northern Ireland	50–64 years	every third year	25–49 years (50–64 years)	every third year (every five year)	–	–	bowel cancer screening
Norway	50–69 years	every second year	25–69 years	every third year	–	–	–
Poland	(to be developed)	–	(to be developed)	–	(to be developed)	–	–
Portugal	50–69 years	every third year	30–60 years	every fourth year	50–74 years	every second year	–
Scotland	under age 75	every third year	(Yes, but not stated specific age group in the NCCP)	–	50–69 years	–	prostate cancer, ovarian cancer, lung cancer, oral cancer (under review)
Spain	50–69 years	every second year	25–60 years	every third year	50–74 years	–	–
Switzerland	50– years	–	25–60 years	–	(under review)	–	melanoma
Wales	up to 70 years	–	20–64 years	every three years	–		bowel cancer
Summary	**19/19**		**19/19**		**10/19**		

Table 8 Organizational Structure for Providing Cancer Services

	Proposed organisational changes of service delivery	Multi-disciplinary teams	Development of networks
Belgium	Establish a collaboration between academic structures, general hospitals and the different industrial stakeholders	Make multidisciplinary oncology consultations compulsory for all new cancer cases and rehabilitation programmes	Set up a Reference Cancer Centre to coordinate and unite all the stakeholders in the fight against cancer
Denmark	Centralise surgical treatment of cancer in departments having a sufficient volume of operations for the individual types of cancer to ensure satisfactory treatment quality.	Specialists responsible for treating cancer patients should be part of a binding continuous multidisciplinary team cooperation that ensures appropriate pathways	Effective diagnosis by primary care sector together with relevant hospitals and physicians
England	Ensure that primary care professionals have appropriate and timely direct access to diagnostic tests.	Establishment of multidisciplinary team to improve in coordination of care for cancer patients	Ensure that network plans for development of Radiotherapy services
Estonia	Enhance centralised surgical oncology centres	Introduce multi-disciplinary team for palliative care including psychotherapy	Regulate the development of the network of cancer treatment institutions.
France		Ensure that all new cancer patients benefit from multidisciplinary care	Ensure that all French regions will be covered by regional oncology networks coordinating all care providers
Hungary	Create a system of county-level and regional cancer care centres that ensures equity in access to care	Set up multidisciplinary cancer care teams and to insert their terms of reference into institutional operating rules	Create IT network for the follow-up of patient pathways in all forms of care delivery.
Ireland	Designate eight Cancer Centres that each serves a minimum population of 500,000.	Ensure cancer care provision by multidisciplinary teams covering the modalities of radiation therapy	All cancer care should be delivered through a national system of four Managed Cancer Control Networks
Italy		Strong integration between specific treatments and support therapies at each stage	Develop a regional network of palliative care
Lithuania		Promote treatment provided by multidisciplinary teams at Personal Health Care Institutions	
Malta		Promote treatments provided by multi-disciplinary teams which bring together all relevant professionals	Improve communications between primary and secondary care.
Netherlands		the quality criteria for coordinated chain care will be ready.	Coordinated chain care, continuum of multidisciplinary healthcare.
Northern Ireland	Set up a regional mechanism for a comprehensive and coordinated approach to competency based cancer workforce planning and development	Develop standards for the effective working of local and regional multidisciplinary teams	Ensure that clinical networks are established for all cancer types and that these are appropriately resourced
Norway		Evaluate the correlation between the treatment modalities of surgery, radiation therapy and medication	Processes targeting function division and multi-regional collaboration shall continue
Poland		Better access to integrated care	
Portugal		Introduce multidisciplinary teams responsible for developing and implementing clinic protocols in the oncologic area	
Scotland	Promote effective diagnosis by primary care sector	Develop integrated approaches of treatment	Fully functional cancer Managed clinical networks (MCNs) will be in place for all cancer services
Spain		Establish multidisciplinary teams for principal tumours, in each hospital with important number of cases	Promote that every health centre join an oncolgy network with all necessary treatments.
Switzerland		Enable patients to be the main agents in their integrated treatment.	Ensure better coordination and consistency of treatment thanks to regional cancer networks
Wales		Ensuring referral from GPs to the relevant cancer multi-disciplinary team	Implement regional Cancer Networks and other regional commissioning arrangements

Table 9 Provision of Cancer Services

	Availability of diagnostic and general treatment	Availability of palliative and rehabilitation care	Availability of innovative care (technologies and drugs)	Evidence-based guidelines
Belgium	Ban smoking in cafés and Ensure the sufficient availability and quality of diagnostic and therapeutic equipment for oncological radiotherapy and imaging to cater	Implement to create a multidisciplinary rehabilitation programme	Improve access to innovative medicines Ensure the sufficient availability of diagnostic and therapeutic devices in radiotherapy and oncological imaging	Develop guidelines for the different types of cancer
Denmark	Develop patient pathways in packages	Determine the rehabilitation needs in order to facilitate goal-oriented rehabilitation efforts early during the course of the disease.	Draw up replacement and implementation plans of radiotherapy equipment for each region	Develop guidelines for clinical diagnosis in primary sector. Ensure the quality of cancer surgery through updating and implementing national clinical guidelines.
England	Establish a new National Awareness and Early Diagnosis Initiative.	Implement a new National Cancer Survivorship Initiative Develop the End of Life Care Strategy	Encourage speedy introduction of new innovations in cancer treatment	Ensuring NICE guidance on the provision of supportive and palliative care.
Estonia	Reduce average waiting time in haematology and oncology treatment	Guarantee rehabilitation and palliative care of good quality for cancer patients	Carry out contemporary evidence based, quality and safe radiation therapy	Introduce and regularly update evidence based oncological guidelines
France	Identify Cancer Coordination Centers (3Cs) in all institutions to provide care to cancer patients	Support the development of palliative care. Increase availability to patients of supportive care	Provide maximum access to diagnostic and therapeutic innovation.	
Hungary	Develop the conditions for state-of-art tumour diagnosis.	Undertake the revision of oncological continuing care facilities. Establish pain clinics at each regional and county-level cancer care centre	Ensure imaging techniques are applied with appropriate quality and efficiency	
Ireland	Develop specific programmes that promote early detection of cancer. Improve cancer information services in primary care.	Ensure comprehensive specialist palliative care service including psychotherapy in each Managed Cancer Control Network.	Establish the National Network for Radiation Oncology Services to ensure that cancer services are fully integrated	Establish site-specific multidisciplinary groups at a national level to develop guidelines for quality in major cancers.
Italy	Identify operational mechanisms able to strongly integrate GPs, oncology network, palliative care, pain relief therapy and domiciliary care providers	Promote psychological support services. Ensure availability and accessibility of opioids, especially oral morphine		
Lithuania	Ensure effective diagnosis by primary care sector. Improve GPs' ability to diagnose early	Organise effective palliative care to help solve physical, psychosocial and spiritual problems	Renovate technologies for treatment for cancer. Expand infrastructure of radiotherapy to provide higher quality treatment	Ensure the effective treatment of oncological patients with methods based on scientific evidence
Malta	Maintain and improve waiting time targets. Redesign and streamline existing services to reduce delays	Ensure equal access to specialist palliative care and home-based palliative care services.	Install new equipment for diagnosis and treatment, such as mammography, CT and MRI scanners	Development of comprehensive packages of guidance on services. Translation of this guidance into measurable national standards.
Netherlands	Develop an implementation plan for early detection	Ensure effective psychosocial care and rehabilitation		Develop, adjust, implement and assess guidelines, both in terms of methodology and content
Northern Ireland	Enhance service provision in the community which extends into the evening and the weekends	Ensure palliative care provision by local and regional multidisciplinary teams. Create a network of GP facilities in palliative care	Focus in future advances in chemotherapy and radionuclide combinations.	Develop action plans for implementation of recommendations for best practice contained in NICE guideline on improving supportive and palliative care
Norway	Ensure good cooperation, communication and continuity in the patient's meeting with the health services	Prioritise rehabilitation in general. Promote standards for palliative treatment	Improve capacity and quality assurance of radiation therapy	
Poland	Raise access to early cancer diagnosing. Introduce public early diagnosis programme	Introduce modern rehabilitation technique and measures to ease the after-effects of cancer treatment and palliative care	Introduction of radiotherapy standard. Replacement of radiotherapy and diagnosing equipment	

Table 9 Provision of Cancer Services *continued*

	Availability of diagnostic and general treatment	Availability of palliative and rehabilitation care	Availability of innovative care (technologies and drugs)	Evidence-based guidelines
Portugal	Create conditions to standardize the procedures of diagnosis, treatment and monitoring patients	Increase the palliative care activity at the central hospitals	Renovate and modernize the out-of-date radiotherapy equipments	
Scotland	Achieve fair and equitable access to cancer drugs and other treatments	Assess comprehensive needs for palliative care. Provide palliative care with emotional and psychological support	Ensure that there is sufficient capacity of modern imaging equipment	Implement the SIGN guideline across all clinical settings of palliative care
Spain	Promote every health centre to join an oncology network. Guarantee quality of cancer treatment and diagnosis	Ensure all cancer patients receiving palliative care during advanced and terminal stages of disease	Recommend provinces radiotherapy services for childhood cancer treatment	
Switzerland	Promote increase in knowledge of early detection of the most common types of cancer	Improve psychosocial care and palliative treatment	Ensure radiotherapy equipment are up to date and increase their capacity	Promote development and implementation of clinical practice guidelines
Wales	Enhance role of primary care for cancer care for improving patients access	Implement Regional Cancer Networks for improving planning and commissioning agreements for palliative care	Update and modernize diagnostic and radiotherapy equipment	Implement NICE referral guidelines for primary care

Table 10 Quality of cancer care

	Accreditation of providers	Quality assurance for general care	Quality assurance for palliative care
Belgium		Develop quality control mechanisms to ensure the efficiency of care	
Denmark		Ensure the quality of surgical treatment of cancer through updating and implementing national clinical guidelines for all areas.	
England	Establish a National Audit in primary care of all patients newly diagnosed with cancer	Enhancing national comparative audits to monitor and improve service quality	Ensure that NICE guidance on supportive and palliative care is implemented as planned
Estonia		Improve quality of cancer diagnosis. Diagnostic guidelines need to be updated. Improve quality of cancer care in order to reduce waiting time.	Guarantee rehabilitation and palliative care of good quality for cancer patients. Create good quality palliative care and nursery care network
France	Define certification/approval criteria for oncology practice in public and private institutions.	Improve care quality through better involvement of GPs in oncology care networks	
Hungary	Certify institutions and care settings that are involved in the provision of cancer treatment and care, taking into account European accreditation criteria	Improving quality of cancer care through evolving a unified system of cancer treatment centres	
Ireland	Develop a system of licensing and accreditation of Cancer Centres and services	Establish a National Framework for Quality in Cancer Control	Promote psychological support services through ad-hoc trained and allocated personnel
Italy	Create a system of institutional accreditation and of quality of healthcare provider.	Establish a quality assurance system of cancer surgery	
Lithuania		Develop quality assurance system of cancer care and cancer surgery	
Malta		Appraisal the future demands for chemotherapy, and of national standards on chemotherapy	
Netherlands	Set up a accreditation system for all hospitals in which cancer is diagnosed and/or treated	By 2005, the quality criteria for coordinated chain care will be ready	
Northern Ireland	Identify and implement recognised accreditation frameworks for diagnostic services	Develop mechanisms to measure the quality of care	Draft standards for palliative treatment as part of the National action programmes
Norway	Establish National Medical Quality Registers	Expand national action program for improving quality of cancer care and quality assurance	Establish criteria for the quality of the palliative care units
Poland		Introduction of quality assurance in cancer diagnosing and treatment	Implement the SIGN guideline across all clinical settings of palliative care
Portugal	Accreditation of providers, quality improvement of cancer care	Introduction of mechanisms of evaluation and continuous improvement of cancer care	Ensure specialist palliative care to be compliance with the National Cancer Standards
Scotland		Improve quality of care by the implementation of national clinical guidelines and monitoring of services	
Spain		Establish consensus of scientific societies with uniform criteria to guarantee quality	
Switzerland		Establish national quality standards for treatment of cancer	
Wales		Quality improvement of cancer care. Ensuring quality of care with the National Cancer Standards.	

Table 11 Human resources for cancer care

	Human resource for general care	Human resource for palliative care
Belgium	Provide training of professionals to communicate with the patient and next of kin when informing the patient of the diagnosis of cancer.	
Denmark	Provide relevant continuing medical education for cancer specialists	Ensure the continuing education of specialist physicians regarding supportive treatment. Support the education of specialists and nurses in palliative care
England	Enhance high quality training to equip healthcare professionals to deliver information to patients effectively and to work as part of an integrated multidisciplinary team	Provide appropriate training for all those involved in delivering care and support to cancer patients
Estonia	Ensure surgical oncology training	
France	Strengthen basic training in oncology and paramedical training schemes for cancer care staff. Deal with the current overburden of health care institutions specializing in oncology by providing medical and nursing staff with more medical time. Increase staffing in departments training oncologists. Improve the organization of retraining and continuing training in oncology	Train and support palliative care institutions. Training nursing staff and clinicians in the psychological support. Foster the development of paramedical training, and in particular of training in nursing, for cancer care in both the public and the private sectors. Better identifying and recognizing new jobs in oncology
Hungary	Organise thematic continuing education sources for primary health care personnel on the basic principles and practices of cancer care	Launch continuing education for nursing and allied health personnel working in the fields of hospice care
Ireland	Develop continuing medical education and professional development programmes for primary care professionals	Provide ongoing training for cancer team members to ensure effectiveness in the management of psychosocial distress in cancer patients.
Italy	Recommend an integrated training plan which involves all the individuals particulate in planning and implementing basic, specific, and continuous education programme	
Lithuania	Provide continuing education for GPs, therapists, surgeons, and nurses	
Malta	Train primary health care professionals to emphasize symptoms profiles and referral strategies. Enhance face-to-face communication skills of staff in the cancer services	Provide additional training in communication skills and in the provision of psychological support
Netherlands	Provide supplemental educational programmes for cancer specialists and nurses including communication skills	Enhance the existing supplementary education programmes for caregivers in the area of palliative care and/or oncology.
Northern Ireland	Deliver advanced communication skills training through a phased implementation programme	Develop specialist posts in primary care settings in palliative and supportive care
Norway	Ensure a correct quantitative and high qualitative provision of education and competence building for healthcare professionals	
Poland	Increase scope of oncology training in graduate and postgraduate medical, dental, nursing, obstetrical and medicine-related curricula	
Portugal	The Universities should direct the pre-graduate education in oncology	Introduce palliative care training of specialists in oncology
Scotland	Continuing improvement of capacity of primary care providers including nurses and pharmacists	All healthcare professionals should practise according to general palliative care principles. Continuing professional development in all aspects of palliative care should be actively supported by NHS Scotland
Spain	Improve communication skills for professionals	
Switzerland	Specialised medical and nursing societies are responsible for further and continuous professional education of their members.	Training doctors and carers in palliative care
Wales	Provide more focused and structured approach for the workforce recruitment, retention and education and training.	Develop a workforce strategy for cancer to support the implementation of policy aims for cancer as they relate to all staffing groups.

Table 12 Supporting care and improving patient knowledge on cancer

	Supporting patients and improving patient knowledge on cancer
Belgium	
Denmark	Develop a coherent public information strategy about symptoms that should lead the patient to see a doctor and about treatment possibilities
England	Empower patients to fully understand about their cancer and its management, be involved in decision making as they wish and make choice about their care. Raise public awareness of the signs and symptoms of early cancer
Estonia	
France	Improve patients' access to insurance, support services, and information on cancer and cancer care
Hungary	Organize comprehensive information and awareness raising programs
Ireland	Recommend educating the public about early detection and the importance of recognising symptoms, performing self-examination. Develop a code of practice for self-help groups, support groups and support centres.
Italy	Create tools for sharing information on curative, assistance and support pathways of each patient
Lithuania	Provide cancer education for public
Malta	Improve patient experience at all stages in the care pathway. Educate for awareness of risk factors of breast cancer
Netherlands	Continually inform population about how cancer can develop, as well as the risk factors
Northern Ireland	Provide evidence based follow-up and re-referral criteria for all cancer patients
Norway	Facilitate good cooperation between the cancer patient's support network, including family and the voluntary sector
Poland	Provide public instruction about cancer prevention, early diagnosing and treatment
Portugal	
Scotland	Establish patient's care pathway with better co-ordinated and managed.
Spain	
Switzerland	Give patients the opportunity to participate substantially in decisions on their cancer treatment
Wales	

Table 13 Cancer research

	Cancer research
Belgium	Create a virtual inter-university tumour bank to promote translational research and to create a network of cooperation among the academic institutions, general hospitals and the various concerned industrial partners
Denmark	Research should be integrated in the routine clinical work, including the work with clinical databases and indicators
England	Develop research proposals on cancer inequalities, test interventions and advise on the development of wider policy. Coordinate cancer research through the NCRI and the National Cancer Research Network (NCRN).
Estonia	Promote registry-based researches and continue the studies of cancer risk factors
France	Provide cancer research with new and strong impetus through the definition of a national research strategy
Hungary	Promote research on diagnostic and therapeutic procedures
Ireland	Develop a specific plan for cancer research. Improve clinical trial entry for patients. Establish a national tissue bio bank to support research and service delivery. Establish a national cancer research database.
Italy	Research conducted by the Italian Medical Oncology Association
Lithuania	Perform scientific research base on the direction of scientific activities that are provided and approved by the government
Malta	Identify needs and support clinical trials. Promote research into causes of high incidence of female breast cancer
Netherlands	Improve researchers' career prospects and the financing of cancer research
Northern Ireland	Establish a strategic process for overseeing and facilitating cancer research. Develop regionally agreed minimum data sets for each cancer type
Norway	Continue to conduct cancer research with good framework conditions through the established research funding systems
Poland	
Portugal	Stimulate basic and clinical research with particular importance for the Foundation for the Science and Technology
Scotland	Encourage more opportunities to develop a research career in epidemiology
Spain	Promote creation and consolidation of research groups. Promote homogeneous procedures for data collection and research
Switzerland	Strengthen clinical research and public health research and support talented young researchers. Optimise coordination and networking for cancer research.
Wales	Collect and store cancer tumour, tissue and blood samples by the Wales Cancer Bank

Table 14 Implementation and monitoring/evaluation of NCCPs

	Measurable indicators and targets	Deadlines	How the implementation / achievement of the plan evaluated
Belgium	(No overall targets specified, Each action has indicators and targets)	(No overall deadlines specified, Each action has deadlines)	The Cancer Plan will be accompanied from the outset by an evaluation mechanism. The Reference Cancer Centre will publish an annual review of the results achieved within the framework of the Cancer Plan.
Denmark			
England			The government is committed to tracking progress on cancer to ensure that the aims of this strategy are achieved. The National Cancer Director will deliver annual reports on progress to Ministers to help enable an informed discussion with stakeholders.
Estonia	*Incidence* Decrease in total cancer incidence rate per 5%; Decrease in lung-cancer incidence rate among men per 10% and discontinuing the increase in incidence rate among women; Decrease in cervical-cancer incidence rate among women per 20%. *Survival (FRS – five-years relative survival) and quality of life* Cancer of gastrointestinal organs – increase of FRS among patients with gastric cancer up to 20%; patients with colon- and rectum cancer up to 45%; Cancer of respiratory organs – increase of FRS among patients with laryngeal cancer up to 60%; patients with lung cancer up to 10%; Cancer of urinary tract – increase of FRS among patients with bladder cancer up to 65%; patients with kidney cancer up to 50%; Cancer of male genital organs – increase of FRS among patients with prostate cancer up to 60%; patients with testical cancer up to 85%; Cancer of female genital organs – increase of FRS among patients with cervical cancer up to 65%; patients with cancer of corpus uteri up to 75%; patients with breast cancer up to 70%; Malignant tumours of brain and central nervous system – to maintain the achieved FRS level; Cancer of the lymphoid tissue – increase of FRS among patients with Non Hodgkin lymphoma up to 45% and patients with Hodgkin lymphoma up to 75%; Leukaemia – increase of FRS among patients with all types of leukaemia up to 40%, patients with severe lymphoid leukaemia up to 20% and with severe myeloid leukaemia up to 10% *Mortality* Decrease in total cancer mortality rate per 10%; Decrease in lung-cancer mortality rate among men per 10% and discontinuing the increase (or significant decrease) in mortality rate among women; Decrease in cervical cancer mortality rate per 30%. The effectiveness of strategy is assessed by the indicators of effectiveness.		The effectiveness of strategy is assessed by the indicators of effectiveness. The department of health information and analysis at the Ministry of Social Affairs, the department of epidemiology and biostatistics at National Institute of Health Development and Cancer Registry are responsible for the assessment of strategy.
France	The nation-wide cancer mobilization plan identifies a number of quantitative indicators, corresponding to outcome goals in five years time. These indicators will be monitored on a yearly basis. 1. Prevention The goal is to achieve the following: smoking should drop by 30% among the young, by 20% in the adult population, and there should be a 20% drop as well in the number of alcohol dependent adults. 2. Screening Consistent screening strategies shall be deployed throughout the country. For breast cancer, 80% of all women aged 50 to 74 will be screened. For cervical cancer, the screening goal is 80% of all women aged 25 to 69. For colorectal cancer, the goal is to develop an experimental screening strategy which could subsequently be implemented on a larger scale. 3. Health care 100% of all patients must gain access to customized care programs, with multidisciplinary care provided in the framework of a health care network. 4. Support All patients must have access to quality information on support structures for cancer patients in their region. Procedures for “breaking the bad news” consultations and psychological support have to be upgraded for all patients. 5. Research The main goal in this respect is to develop a cancer monitoring system which truly covers the whole population. French research in oncology must achieve levels of	in 2007	The National Cancer Institute shall publish annual reports on plan implementation. The plan is being monitored, from the very onset, by a public policy assessment mechanism

Table 14 Implementation and monitoring/evaluation of NCCPs *continued*

	Measurable indicators and targets	Deadlines	achievement of the plan evaluated
	international excellence. On of its goals, in particular, is to ensure that at least 10% of all patients are included in clinical trials in reference centres. Cancer-specific genomic research must be carried out on a large scale: the goal here is to develop tumour libraries comprising up to 100,000 samples for clinical and biological analysis.		
Hungary		YES (No overall deadlines specified, Each action has deadlines)	
Ireland	19 indicators are specified 1 Percentage of the population who are smokers by age, sex and social class 2 Percentage of the adult and childhood populations who are overweight or obese by age, sex and social class 3 Percentage of the population who consume more than the recommended alcohol weekly limits by age, sex and social class 4 Incidence of major site-specific cancers, to include at a minimum lung, breast, prostate and colorectal cancer 5 Incidence of invasive and in-situ melanoma 6 Uptake of screening and incidence of interval breast cancers in populations covered by Breast Check 7 Percentage of women, in the target age-groups, for whom population based cervical cancer screening is available 8 Percentage uptake of screening in areas covered by the Irish Cervical Screening Programme 9 Stage of presentation of common cancers: appropriate stage indicators should be defined for lung, breast, colorectal and cervical cancers 10 Percentage of patients with cancer whose care is consistent with national, multidisciplinary guidelines, as developed by HIQA 11 Trends in quality of life for cancer patients, determined by ongoing quality of life measurement, at different stages in the care pathway for major cancers 12 Waiting times from diagnosis to definitive treatment for major cancers 13 Percentage of patients waiting for longer than one month from the time of diagnosis to the start of treatment 14 Percentage of breast cancer patients undergoing therapeutic surgical procedures who do so in a designated breast cancer treatment centre 15 Survival rates: a. 5-year Relative Survival Rate for Breast Cancer b. 1-year Relative Survival Rate for Lung Cancer c. 5-year Relative Survival Rate for Prostate Cancer d. 5-year Relative Survival Rate for Colorectal Cancer 16 Mortality rates: a. Direct Age Standardised Mortality rate (5-year, all ages) for all causes of cancer b. Direct Age Standardised Mortality rates (5-year, all ages) for the top six causes of cancer mortality 17 Percentage of cancer patients seen by a member of a Specialist Palliative Care Team 18 Percentage of cancer patients dying by place of death (home, hospice, hospital) 19 Percentage of cancer patients participating in clinical trials		Present a report on policy indicators each year to the National Cancer Forum.
Italy			
Lithuania	1. Reduce death rate of cancer of breast and cervix of uterus by 15 percent; 2. Reduce mortality rate of cancer of cervix of uterus reduced by about 30 percent; 3. Increase up to 20 percent of early diagnosed malignant tumour cases; 4. Reduce neglected malignant tumours by about 20 percent; 5. Up to 80 percent of women will take screening programmes; 6. Increase by 2–5 percent of 5-year-survival rate of cancer Programme implementation: 2003-2010	2003 – 2010	
Malta			
Netherlands	(The NPK Steering Group will establish a set of indicators)	in 2005	
Northern Ireland	To achieve a 25% reduction in age-adjusted cancer incidence by the year 2025. Increase the 5 year cancer survival rates to the levels of the best European countries	by 2025	The Cancer Control Programme will be subject to review on an ongoing basis. Progress against the recommendations will be published within 3 years of publication with a formal review of the recommendations in 2011

Table 14 Implementation and monitoring/evaluation of NCCPs *continued*

	Measurable indicators and targets	Deadlines	How the implementation / achievement of the plan evaluated
Norway	(No overall targets specified, Each action has indicators and targets)	(No overall deadlines specified, Each action has deadlines)	
Poland			
Portugal	Promotion and primary prevention • Involving the COR in prevention programs as of beginning of 2008. Registry • Creation of the COR oncologic registry workgroups, during 2007. Screening • Creating each one of COR tracing workgroups, during 2007 • Breast cancer – defining the organizing model for the Direction for Tracing, during 2008 • Uterus cancer – implementing, in at least one Health centre, in each ARS, until de end of 2008 • Colon/Rectum Cancer - implementing, in at least one Health centre, in each ARS, until de end of 2009 RRIO and Waiting list management • Creating the workgroup and elaborating the document until the end of 2009 • Approval and implementation of the network during 2010 Radiotherapy • Creating the workgroup during 2007 • Replace all equipment, older than 10 years, until 2010 Recommendations for Diagnosis, Therapeutics and Monitoring • Start elaborating the therapeutic recommendations for Colon/Rectum, breast, prostate and lung tumours during 2007 • Conclusion and implementation beginning during 2008 of the recommendations elaborated during 2007 • Creation of new groups with similar objectives and goals for other pathologies during 2008.	(Each indicator has deadlines. See indicators)	
Scotland			The new NHS Scotland performance and accountability framework will provide the structure through which routine monitoring will be assessed and reported. Regional Cancer Advisory Groups and NHS Boards will be assessed against the deliverables set out in their annual cancer investment plans.
Spain	(No overall targets specified, Each action has indicators and targets)	(No overall deadlines specified, Each action has deadlines)	
Switzerland	(No overall targets specified, Each action has indicators and targets)	(No overall deadlines specified, Each action has deadlines) by 2008	
Wales	More prevention • every smoker who wants to quit smoking has access to an NHS smoking cessation service within one month of referral • all LHBs and NHS Trusts have achieved the gold or platinum level of the Corporate Health Standard, the national quality mark for the development of workplace health initiatives that seek to reduce sickness absence levels and improve recruitment and retention of staff • all LHBs and NHS Trusts have in place an approved health promotion strategy covering services and staff • three quarters of state schools participate in the Welsh Network of Healthy School Schemes and all by March 2010 • a range of action to encourage healthy eating and physical activity has been developed and is being maintained through the Nutrition Strategy for Wales, the Food and Fitness Action Plan for Children and Young People, and the work of the Welsh Assembly Government Sport and Physical Activity Working Group. • further steps have been taken towards eliminating smoking in public places, including issuing guidance to NHS bodies on smoke free NHS premises.		Progress on the targets for strategic framework will be monitored and performance managed by the Assembly Government's Department of Health and Social services' Regional Offices.

Table 14 Implementation and monitoring/evaluation of NCCPs *continued*

	Measurable indicators and targets	Deadlines	How the implementation / achievement of the plan evaluated
	• all LHBs, NHS Trusts and the National Public Health Service have taken further steps to target cancer risk factor activities within the most deprived communities Early detection • the Chief Medical officer's website has a section on cancer awareness with links to relevant websites • a programme of action raising public awareness of the symptoms of skin cancer is being further developed • the national screening programmes for breast and cervical cancer continue to improve their detection rates • a national screening programme for bowel cancer as part of a National Bowel Cancer Framework is being planned and put in place Improved access • primary care is routinely implementing NICE referral guidelines • routinely, patients referred as urgent with suspected cancer, if diagnosed, start definitive treatment within two months; other patients not referred in this way but consequently diagnosed with cancer start definitive treatment within one month of diagnosis • patients have access to non-emergency patient transport to hospital for treatment • Regional Cancer Networks and other regional commissioning arrangements, are implementing a commissioning strategy, informed by CSCG planning advice, for radiotherapy to ensure Joint Council for Clinical Oncology recommended waiting times are met routinely from March 2009. • diagnostic and radiotherapy equipment is being updated and modernised • Regional Cancer Networks are routinely planning for the introduction of new cancer drugs and are monitoring their implementation in line with national guidance Better services • cancer services, including specialist palliative care, are undergoing the necessary reconfiguration and other changes required to ensure compliance with the National Cancer Standards by March 2009 • the new commissioning process is being used to drive the implementation of the regional Cancer Network action plans • all cancer teams are using CaNISC, are participating routinely in national clinical audits, and are benchmarking with teams in the United Kingdom and Europe where possible • a national Bowel Cancer Framework setting out a holistic approach to this disease has been published and is being taken forward • a service improvement and modernisation programme to support cancer services is underway • National Cancer Standards for sarcomas, brain cancers and children's cancers have been developed • 2 PET scanners, one for clinical use and one for research, are being procured for Wales • regional Cancer Networks are implementing improved planning and commissioning agreements for palliative care and services for enduring cancer related health needs with each of the NHS and voluntary sector providers in their area which are based on patient need • the All Wales Care Pathway for the Last Days of Life is routinely being delivered by all providers		

9.4 Annex 4: Country case studies

Belgium

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	Develop a structured approach and a long term vision of cancer in Belgium. The Cancer Plan 2008-2010 consists in 32 actions focusing on 3 pilars: - Prevention screening - Care, treatment and patient support - Research, innovative technologies and evaluation
Governance, arrangement	
Macro-organization structures	Create a network and the specialisation of the eight centres of paediatric oncology
Governance	The Federal Cancer Centre will be responsible for the implementation of the Cancer Plan, for the collection of data and the editing of reports to support cancer related decisions and to prepare the Cancer Plan 2011-2015.
Accountability for delivering plan	
Registry and surveillance	Create a Royal Decree of the Cancer Registry Foundation as a recognised body, set up a users committee, ensure a structural financing.
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	Allocate of EUR 380 million to cover 2008-2010
Allocation of the fund	1.2 million Euros for functional rehabilitation programme (Deadline: 2009-10), 6 million Euros for supporting parents of children with cancer (Deadline: 2008-9), 2 million Euros for improving access to psychological support (Deadline: 2008-9); 3 million Euros for creation of a tumour bank to promote translational research; 15 million Euros for promoting translational research (other); 1 million Euros for consolidation of the Cancer Registry Foundation; 601,000 Euros to improve reimbursement for breast reconstruction;
New technology	Ensure funding for the diagnostic and therapeutic equipment for oncological radiotherapy and imaging
Pharmaceutical	Reimburse or extend the reimbursement of certain medications such as Avastin™, Busulfan™ and Rituximab™.
Human resources	Fund multidisciplinary liaison teams for children in the palliative care (744.800 Euros). Fund multidisciplinary teams to support the patients: nurses, social workers and psychologists. Fund data managers. Fund paramedical teams in the 8 centres of paediatric oncology. Fund coordination teams for traslational research.
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	Finance 3 million Euros per year for developing cancer database to improve quality of cancer data
Research	Allocate 22 million Euros for promoting clinical and translational research.
Cost sharing	Reimburse a 30 Euros first counselling session with a tobacco expert to quit smoking to all smokers. Reimburse 20 Euros per session, with a maximum of 8 sessions. Improve the reimbursement of the anti-cancer treatment by the compulsory health insurance. Improve the reimbursement of some extra costs of the anti-cancer treatment Revalorization of the multidisciplinary oncology consultation
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	Free access to a prevention check up with the GP every three years for patients holding a global medical file from the age of 25
Tobacco - smoking free	Ban smoking at working places Ban smoking in cafés and tobacco product vending machines Reinforcement of the controls regarding the application of the tobacco laws
Tobacco - smoke cessation	Reimbursement of counselling sessions to help quitting smoking
Tobacco - education	
Tobacco - taxation	
Alcohol	
Unhealthy diet - fruit and vegetable intake	
Unhealthy diet - education and promotion	
Physical activity	
Exposure to sunlight	
Occupation and environment	

Belgium *continued*

Items	Summaries from NCCP
Screening	
Breast cancer - age	50-69 years
Breast cancer - frequency	Every 2 years
Cervical cancer - age	25–64 years (extension of the vaccination to girls 12-18 years)
Cervical cancer - frequency	every third year
Colon cancer - age	–
Colon cancer - frequency	–
Others	Screening of genetic predisposition to cancer: : reimbursement of new genetic tests for predisposition to cancer (breast, ovarian, colon) Revalorisation of the genetic consultation Improvement of the screening and early diagnosis of breast cancer : same control of the equipment for the mammography and the mammotest, registration of the individual screening investigations, for patients with positive mammotest complementary investigations free of charge, free of charge investigation for a complete senological check-up in women with high risk of breast cancer. Cervical cancer; better reimbursement of the complementary investigations if cervical smear is positive and registration of the results of the screening in the database of the Cancer Registry.
Other education	
Other Promotion	
Structure	
Proposed organisational changes of service delivery	~~Establish a collaboration between academic structures, general hospitals and the~~ different industrial stakeholders
Multi-disciplinary teams	Make multidisciplinary oncology consultations compulsory for all new cancer cases and rehabilitation programmes
Development of networks	Set up a Reference Cancer Centre to coordinate and unite all the stakeholders in the fight against cancer
Care	
Availability of diagnostic and general treatment	Ensure the sufficient availability and quality of diagnostic and therapeutic equipment for oncological radiotherapy and imaging Access to hadrontherapy
Availability of palliative and rehabilitation care	Implement to create a multidisciplinary rehabilitation programme Define the condition for the recognition of a handicap after a cancer treatment
Availability of innovative care (technologies and drugs)	Improve access to innovative medicines Ensure the sufficient availability of diagnostic and therapeutic devices in radiotherapy and oncological imaging
Evidence-based guidelines	Develop guidelines for the different types of cancer
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	For GPs following a training on prevention
Systems for quality assurance and control	
general care	Develop quality control mechanisms to ensure the efficiency of care Develop “care pathways” Develop a paediatric oncology care programme Develop a qualitative and quantitative approach of rare tumours Recognition of the title of oncology nurse Support to geriatric oncology project
Palliative care	Improve the palliative care service
HR	
Education and continuous training to health care providers	
general care	Provide training of professionals to communicate with the patient and next of kin when informing the patient of the diagnosis of cancer.
Palliative care	
Supporting patients and improving patient knowledge on cancer	
Cancer research	Create a virtual inter-university tumour bank to promote translational research and to create a network of cooperation among the academic institutions, general hospitals and the various concerned industrial partners
Specific target (Indicators of success, deadline)	(No overall target, but targets for each action plan (32 in total) are stated in the NCCP)
How the implementation / achievement of the plan evaluated	The Cancer Plan will be accompanied from the outset by an evaluation mechanism. The Reference Cancer Centre will publish an annual review of the results achieved within the framework of the Cancer Plan.

Denmark

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	The purpose of National Cancer Plan II is to strengthen cancer prevention efforts and to improve the foundation for providing Danish cancer patients with diagnosis and treatment pathways that are implemented early, are experienced as coherent by the patients, and are of a high international standard.
Governance, arrangement	
Macro-organization structures	Ensure coordination of the local plans
Governance	
Accountability for delivering plan	
Registry and surveillance	Ensure that the national registers, patient administration systems and clinical databases cover the whole cancer area.
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	
Allocation of the fund	
New technology	Establish 300 million Danish Krone loan funds for CT and MRI scanners
Pharmaceutical	
Human resources	
Infrastructure	
Population based prevention and promotion	Allocate 73 million Danish Krone for prevention of overweight in children
Registry and surveillance	
Research	Funds should be allocated to both clinical research units and centres of expertise
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Completely smoke-free environments at workplaces and in public spaces like restaurants, bars etc. with a size of more than 40 m2
Tobacco - smoke cessation	Expand publicly financed smoking cessation programmes for the population
Tobacco - education	Conduct information campaigns among the population at schools
Tobacco - taxation	Set tobacco levies as high as possible within the tax policy framework.
Alcohol	Set high levies on alcoholic products. Actually the levies on alcohol have lowered in 2003 in order to limit the number of people who purchase alcohol in Germany and bring it back into Denmark. The levies have not been raised since Raise the minimum age for purchasing alcohol. In 2004 the minimum age for purchasing alcohol in shops was raised from 15 to 16 years. Minimum age for purchasing alcohol in restaurants and bars is 18 years – for many years-
Unhealthy diet - fruit and vegetable intake	Ensure availability of fruit and vegetables at workplaces
Unhealthy diet - education and promotion	Restrict on the marketing of sweets, soft drinks and fatty and sweet foods.
Physical activity	This is a recommendation at schools (widely accepted) and workplaces
Exposure to sunlight	Introduce exercise policies at workplaces and in schools (public campaigns, etc...)
Occupation and environment	Intensify information to the public concerning healthy sun habits (through public campaigns and campaigns targeted day cares, schools etc.)

Denmark

Items	Summaries from NCCP
Screening	
Breast cancer - age	50–69 years
Breast cancer - frequency	every second year
Cervical cancer - age	Since June 2007: All women in age of 23 – 50 years are invited to a cervix cancer screening test every third year Women older than 50 years are invited to a cervix cancer screening test every fifth year A cervix cancer screening test takes places among women older than 65 years if the latest two cervix cancer screening tests in the last ten years have been negative.
Cervical cancer - frequency	-
Colon cancer - age	–
Colon cancer - frequency	–
Others	intestinal cancer
Other education	
Other Promotion	
Structure	
Proposed organisational changes of service delivery	Centralise surgical treatment of cancer in departments having a sufficient volume of operations for the individual types of cancer to ensure satisfactory treatment quality.
Multi-disciplinary teams	Specialists responsible for treating cancer patients should be part of a binding continuous multidisciplinary team cooperation that ensures appropriate pathways
Development of networks	Effective diagnosis by primary care sector together with relevant hospitals and physicians
Care	
Availability of diagnostic and general treatment	Develop patient pathways in packages
Availability of palliative and rehabilitation care	Determine the rehabilitation needs in order to facilitate goal-oriented rehabilitation efforts early during the course of the disease.
Availability of innovative care (technologies and drugs)	Draw up replacement and implementation plans of radiotherapy equipment for each region
Evidence-based guidelines	Develop guidelines for clinical diagnosis in primary sector. Ensure the quality of cancer surgery through updating and implementing national clinical guidelines.
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	
Systems for quality assurance and control	
general care	Ensure the quality of surgical treatment of cancer through updating and implementing national clinical guidelines for all areas.
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Provide relevant continuing medical education for cancer specialists
Palliative care	Ensure the continuing education of specialist physicians regarding supportive treatment. Support the education of specialists and nurses in palliative care
Supporting patients and improving patient knowledge on cancer	Develop a coherent public information strategy about symptoms that should lead the patient to see a doctor and about treatment possibilities
Cancer research	Research should be integrated in the routine clinical work, including the work with clinical databases and indicators
Specific target (Indicators of success, deadline)	(The recommendations made in National Cancer Plan II do not include concrete goals)
How the implementation / achievement of the plan evaluated	There has been a “follow-up” on the plan in September 2007, though this cannot been described as a comprehensive evaluation of the plan.

England

Items	Summaries from NCCP
Key challenges identified in the plan	• The incidence of cancer continues to rise due to the ageing population and is predicted to increase by around a third between 2001 and 2020; • The link between obesity and cancer is now much clearer than it was seven years ago and the substantial rise in levels of obesity will further increase the numbers of new cancers; • Major inequalities in cancer death rates between rich and poor remain; • Survival rates for some poor prognosis cancers have remained largely unchanged, such as for lung cancer and pancreatic cancer, partly due to difficulties in diagnosing these cancers early. Eurocare 4 data indicates English survival rates continue to be lower than elsewhere in Europe despite progresses made • Advances in medical technology are creating major new opportunities to diagnose and treat cancer more effectively but these will place additional cost and capacity pressures on services; • The NHS Cancer Plan 2000 was a ten year plan and the work started by it needs to be completed and sustained, for example on service reconfiguration; • An 'information deficit' remains which inhibits patient care management and limits the ability of patients to make informed choices on treatment and services; and • More people are now surviving cancer or living with it for many years. They may require different kinds of care and support from those traditionally available.
Aims and objectives	The Cancer Reform Strategy 2007 built on NHS Cancer Plan 2000 aiming to: save more lives; improve patients' quality of life; reduce inequalities; build for the future; enable cancer care to be delivered in the best place at the right time and achieve maximum value for money
Governance, arrangement	
Macro-organization structures	The National Cancer Director and the National Cancer Action Team will continue to play an important role in setting national strategy and supporting local delivery. Cancer networks will play a central role, reporting to primary care trusts (PCTs) in commissioning cancer services. A number of national initiatives have been established to drive progress on different areas. Advisory groups for different aspects of cancer delivery eg radiotherapy and chemotherapy will continue to support national policy.
Governance	An advisory Board will oversee national delivery
Accountability for delivering plan	Annual progress reports will be published.
Registry and surveillance	The UK Cancer Registries are widely recognised as being amongst the most accurate and comprehensive in the world A new National Cancer Intelligence Network (NCIN) is being established to bring together relevant stakeholders and to act as a repository of cancer data. The objective of the NCIN is to provide the best quality cancer information in the world.
Financing	
Current funding sources for cancer care as indicated in the plan	England spends 4.35 billion Pounds a year for cancer care, additional spending on cancer came to 693 million Pounds over a three year period from 2000.
Propose funding to implement in the plan including additional funding	Add 70 million Pounds to overall costs per year as a baseline. Improve cost-effectiveness of cancer care delivery. Cancer programme costs are at least 4.35 billion Pounds a year
Allocation of the fund	
New technology	Invest over 500 million Pounds in additional and replacement equipment for cancer
Pharmaceutical	Future growth in spending on cancer drugs approximately 60 – 80 million Pounds per annum.
Human resources	Invest 5 million Pounds for increasing number of radiotherapists
Infrastructure	Significant investment in equipment including radiotherapy and digital mammography.
Population based prevention and promotion	Fund to ensure that local stop smoking services. Increase the funding available for awareness programmes of sun protection
Registry and surveillance	Government funding for NCIN
Research	Fund 77 million Pounds for the next five years for the National Cancer Research Network (NCRN)
Cost sharing	Ensure that all people affected by cancer are given information about what financial help (including welfare benefits). New PPRS to encourage innovative pricing mechanisms for medicines
Service delivery	
Public health interventions (prevention, screening, education, promotion)	Established NAEDI (National Awareness and Early Detection Initiative;) NCSI (National Cancer Survivorship Initiative) and NCEI (National Cancer Equality Initiative)
Prevention	
Tobacco - smoking free	Completely smoke-free environments in all enclosed workplaces and public places
Tobacco - smoke cessation	Widen access to nicotine replacement therapy products to support smokers to quit
Tobacco - education	Education and communications campaigns on stop smoking
Tobacco - taxation	Using tax to maintain the high price of tobacco
Alcohol	Increase the number of people drinking within sensible drinking guidelines
Unhealthy diet - fruit and vegetable intake	

England *continued*

Items	Summaries from NCCP
Unhealthy diet - education and promotion	Introduce new nutritional standards in schools
Physical activity	Improve school children's sport activity.
Exposure to sunlight	Increase the funding available for awareness of sun protection programmes
Occupation and environment	
Screening	
Breast cancer - age	47–73 years
Breast cancer - frequency	every third year
Cervical cancer - age	25–49 years (50–64 years) (vaccination to girls 12-18 years)
Cervical cancer - frequency	every third year (every five year)
Colon cancer - age	60-69 years (over 70 can apply)
Colon cancer - frequency	Will be extended to 75.
Others	Bowel cancer roll out completed end 2009. Trial for lung, prostate, and ovarian cancer, Genetic services
Other education	Raise public awareness of the signs and symptoms of early cancer.
Other Promotion	
Structure	
Proposed organisational changes of service delivery	Ensure that primary care professionals have appropriate and timely direct access to diagnostic tests. Ensure care is delivered close to patients home where possible but in specialist centres where necessary.
Multi-disciplinary teams	Establishment of multidisciplinary team (MDT) to improve in coordination of care for cancer patients. MDTs in all cancers have been established. Action will be taken to improve the quality of MDTs
Development of networks	Cancer Networks to act as Commissioning advisors for (PCTs)
Care	Ensure that network plans for development of radiotherapy services
Availability of diagnostic and general treatment	Establish a new National Awareness and Early Diagnosis Initiative (NCEI)
Availability of palliative and rehabilitation care	Implement a new National Cancer Survivorship Initiative Develop the End of Life Care Strategy
Availability of innovative care (technologies and drugs)	All cancer drugs to be referred to National Institute for Health and Clinical Excellence (NICE) for appraisal. Uptake of NICE guidance to be monitored Funding decision making processes to be improved for when NICE guidance not available.
Evidence-based guidelines	Ensuring NICE guidance on the provision of supportive and palliative care.
Supportive care provision (non-professional)	National cancer information pathways developed and National patient experience survey programme introduced.
Quality	NCIN to collect data on clinical outcomes. Peer review programme to continue
Accreditation of providers	Establish a National Audit in primary care of all patients newly diagnosed with cancer
Systems for quality assurance and control	
general care	Enhancing national comparative audits to monitor and improve service quality
Palliative care	Ensure that NICE guidance on supportive and palliative care is implemented as planned
HR	
Education and continuous training to health care providers	A number of specific training programmes have been introduced, ge laparoscopic surgery for bowel cancer and prostate MDT.
general care	Enhance high quality training to equip healthcare professionals to deliver information to patients effectively and to work as part of an integrated multidisciplinary team
Palliative care	Provide appropriate training for all those involved in delivering care and support to cancer patients
Supporting patients and improving patient knowledge on cancer	Empower patients to fully understand about their cancer and its management, be involved in decision making as they wish and make choice about their care. Raise public awareness of the signs and symptoms of early cancer
Cancer research	Develop research proposals on cancer inequalities, test interventions and advise on the development of wider policy. Coordinate cancer research through the NCRI and the National Cancer Research Network (NCRN).
Specific target (Indicators of success, deadline)	Reduction in mortality target; waiting time targets for all treatments.
How the implementation / achievement of the plan evaluated	The government is committed to tracking progress on cancer to ensure that the aims of this strategy are achieved. The National Cancer Director will deliver annual reports on progress to Ministers to help enable an informed discussion with stakeholders.

Estonia

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	Permanent decreases in the incidences of preventable malignant tumours among population. The increase in cancer patients survival, improved quality of life and decrease in death rate. Improve cancer patients` life quality.
Governance, arrangement	
Macro-organization structures	
Governance	The Ministry of Social Affairs is responsible for coordination and achieving the goals of national cancer strategy and executive unit is the national Institution for Health Development.
Accountability for delivering plan	
Registry and surveillance	Enhance the Estonian Cancer Registry
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	The action plan of the strategy is financed from state budget funds by the Ministry of Social Affairs, Estonian Health Insurance Fund and by donations.
Allocation of the fund	
New technology	
Pharmaceutical	
Human resources	
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	
Research	
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Completely smoke-free environments in all enclosed workplaces and public places
Tobacco - smoke cessation	Funding via National Strategy for Prevention of cardio-vascular diseases (2005-2020), integration of smoking cessation counselling in the primary level of the health care system; Encourage the cessation of smoking through campaigns such as Quit & Win Reduce the percentage of children smoking, create webpage “health info”
Tobacco - education Tobacco - taxation	Increasing the agreed level of tobacco excise taxes according to the requirements set out in the EU accession agreement within five years instead of ten. Of the excise taxes collected, 1% will be used to finance activities and health campaigns aimed at the reduction of smoking
Alcohol	Reduce alcohol consumption
Unhealthy diet - fruit and vegetable intake	Funding via National Strategy for Prevention of cardio-vascular diseases: facilitation of the healthy nutrition choices of the population and improving knowledge of balanced nutrition and ensuring compliance with the principles of balanced nutrition in institutional catering (example: “One fruit at School” project)
Unhealthy diet - education and promotion	Promote healthful and safe food choice
Physical activity	Increase physical activity
Exposure to sunlight	Reduce exposure to UV-radiation
Occupation and environment	Reduce cancer risks in work and living environment.
Screening	
Breast cancer - age	50–59 years
Breast cancer - frequency	every second year
Cervical cancer - age	30–59 years
Cervical cancer - frequency	in a five years interval
Colon cancer - age	–
Colon cancer - frequency	–
Others	Prostate, intestine and lung cancer
Other education	Raise public awareness of the signs and symptoms of early cancer: yearly cancer weeks in October and Breast Cancer week in May “Don’t be late”
Other Promotion	

Estonia *continued*

Items	Summaries from NCCP
Structure	
Proposed organisational changes of service delivery	Enhance centralised multimodal cancer centres
Multi-disciplinary teams	Introduce multi-disciplinary team for palliative care including psychotherapy
Development of networks	Regulate the development of the network of cancer treatment institutions.
Care	
Availability of diagnostic and general treatment	Reduce average waiting time in haematology and oncology treatment
Availability of palliative and rehabilitation care	Guarantee rehabilitation and palliative care of good quality for cancer patients
Availability of innovative care (technologies and drugs)	Carry out contemporary evidence based, quality and safe radiation therapy
Evidence-based guidelines	Introduce and regularly update evidence based oncological guidelines
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	
Systems for quality assurance and control	
general care	Improve quality of cancer diagnosis. Diagnostic guidelines need to be updated. Improve quality of cancer care in order to reduce waiting time.
Palliative care	Guarantee rehabilitation and palliative care of good quality for cancer patients. Create good quality palliative care and nursery care network
HR	
Education and continuous training to health care providers	
general care	Ensure surgical oncology training, and radiotherapy training based on "A Global Core Curriculum in Medical Oncology" programme
Palliative care	
Supporting patients and improving patient knowledge on cancer	
Cancer research	Promote registry-based researches and continue the studies of cancer risk factors
Specific target (Indicators of success, deadline)	*Incidence* Decrease in total cancer incidence rate per 5%; Decrease in lung-cancer incidence rate among men per 10% and discontinuing the increase in incidence rate among women; Decrease in cervical-cancer incidence rate among women per 20%. *Survival (FRS – five-years relative survival) and quality of life* Cancer of gastrointestinal organs – increase of FRS among patients with gastric cancer up to 20%; patients with colon and rectum cancer up to 45%; Cancer of respiratory organs – increase of FRS among patients with laryngeal cancer up to 60%; patients with lung cancer up to 10%; Cancer of urinary tract – increase of FRS among patients with bladder cancer up to 65%; patients with kidney cancer up to 50%; Cancer of male genital organs – increase of FRS among patients with prostate cancer up to 60%; patients with testicular cancer up to 85%; Cancer of female genital organs – increase of FRS among patients with cervical cancer up to 65%; patients with cancer of corpus uteri up to 75%; patients with breast cancer up to 70%; Malignant tumours of brain and central nervous system – to maintain the achieved FRS level; Cancer of the lymphoid tissue – increase of FRS among patients with Non Hodgkin lymphoma up to 45% and patients with Hodgkin lymphoma up to 75%; Leukaemia – increase of FRS among patients with all types of leukaemia up to 40%, patients with severe lymphoid leukaemia up to 20% and with severe myeloid leukaemia up to 10% *Mortality* Decrease in total cancer mortality rate per 10%; Decrease in lung-cancer mortality rate among men per 10% and discontinuing the increase (or significant decrease) in mortality rate among women; Decrease in cervical cancer mortality rate per 30%. The effectiveness of strategy is assessed by the indicators of effectiveness.
How the implementation / achievement of the plan evaluated	The department of health information and analysis at the Ministry of Social Affairs, the department of epidemiology and biostatistics at National Institute of Health Development and Cancer Registry are responsible for the assessment of strategy.

France

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	The plan's goal is to bring cancer-caused mortality down by 20% in the next five years. The plan aims to impact our whole health care system with a renewed vision, where the fight against cancer is fought by patients, their families and friends, and the medical and nursing teams alike.
Governance, arrangement	
Macro-organization structures	Ensure all regions will be covered by regional oncology networks
Governance	A national project task force was initially set up to coordinate and monitor plan implementation; this led to the creation of a National Cancer Institute (NCI) to comprehensively oversee the plan.
Accountability for delivering plan	Formal auditing system in place. In 2007, goals were classified as a) being adequately met (33%), b) developing (33%), and c) inadequately met (33%).
Registry and surveillance	Support cancer registers and develop the national epidemiology system to cover 15% of the French population
Financing	
Current funding sources for cancer care as indicated in the plan	Initially, the NCCP was to be funded by tobacco taxes; now, the Ministries of Health and Research each contribute 50% of costs
Propose funding to implement in the plan including additional funding	In addition to funds already used for cancer care, 100 million Euros were allocated as of 2003 and forecasted to reach 640 million Euros in 2007. In fact, approximately 1.7 billion Euros were added to the social security system for cancer care, bringing the total to 10 billion Euros annually for these services. A funding mechanism for cancer care to encourage best practices
Allocation of the fund	
New technology	Public and private funding for expensive and innovative medication and facilities
Pharmaceutical	Funds allocated for innovative medication
Human resources	Invest to increase number of cancer professionals
Infrastructure	
Population based prevention and promotion	Fund stop-smoking media campaigns
Registry and surveillance	Additional funds allocated to existing cancer surveillance, and special funds to establish thyroid cancer registry and registry in Ille de France
Research	Fund cancer research with new and strong impetus
Cost sharing	Cancer care is covered integrally by the social security system
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Enforce legislation requiring public places to be smoke-free
Tobacco - smoke cessation	Urge pregnant women to quit smoking by providing access to special detoxification programs
Tobacco - education	Launch "No-smoking in Schools" campaign. Ban on tobacco-product advertising
Tobacco - taxation	Increase price of cigarettes from 3¤ to 5¤/pack (contributed to a decrease of 12% in smoking prevalence between 2003 and 2005).
Alcohol	Help people put an end to alcohol abuse
Unhealthy diet - fruit and vegetable intake	Launch a campaign to increase fruit and vegetable intake
Unhealthy diet - education and promotion	Develop specific initiatives to promote nutritional health. Law passed requiring all food and drink products to include in their packaging/advertising reminders encouraging physical activity and a healthy diet.
Physical activity	See above (unhealthy diet – education and promotion)
Exposure to sunlight	Develop melanoma prevention initiatives
Occupation and environment	Improve the involvement of occupational health services in cancer prevention
Screening	Increase population access to screening
Breast cancer - age	50–74 years
Breast cancer - frequency	Every 2 years
Cervical cancer - age	25–69 years
Cervical cancer - frequency	Every 2 years
Colon cancer - age	50-74 years old
Colon cancer - frequency	Haemoccult tests every 2 years
Others	Melanoma: 1 day annual drive with free visit to dermatologist
Other education	
Other Promotion	

Items	Summaries from NCCP
Structure	
Proposed organisational changes of service delivery	Establish legal authorization process for centres to treat specific cancers with quantitative (minimum case loads, with maximums for radiotherapy) and qualitative (multidisciplinary teams, personalized roadmap for care) criteria. Note: About 50% of centres which used to treat cancers have since not been reauthorized.
Multi-disciplinary teams	Ensure that all new cancer patients benefit from multidisciplinary care
Development of networks	Ensure that all French regions will be covered by regional oncology networks coordinating all care providers
Care	
Availability of diagnostic and general treatment	Identify Cancer Coordination Centres (3Cs) in all institutions to provide care to cancer patients
Availability of palliative and rehabilitation care	Support the development of palliative care. Increase palliative care units, beds and teams in hospitals. Increase availability to patients of supportive care
Availability of innovative care (technologies and drugs)	Provide maximum access to diagnostic and therapeutic innovation.
Evidence-based guidelines	NCI has the competency of writing and publishing evidence-based guidelines for all cancers.
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	Define certification/approval criteria for oncology practice in public and private institutions.
Systems for quality assurance and control	
general care	Improve care quality through better involvement of GPs in oncology care networks
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Strengthen basic training in oncology and paramedical training schemes for cancer care staff. Deal with the current overburden of health care institutions specializing in oncology by providing medical and nursing staff with more medical time. Increase staffing in departments training oncologists. Improve the organization of retraining and continuing training in oncology
Palliative care	Train and support palliative care institutions. Training nursing staff and clinicians in the psychological support. Foster the development of paramedical training, and in particular of training in nursing, for cancer care in both the public and the private sectors. Better identifying and recognizing new jobs in oncology
Supporting patients and improving patient knowledge on cancer	Improve patients' access to insurance, support services, and information on cancer and cancer care. Revise and correct problems in access to life insurance, which conditions access to mortgages and other credits. Legislation regulating this arose following the Belorgey Convention and now guarantees financial equality in loan access for cancer patients.
Cancer research	Provide cancer research with new and strong impetus through the definition of a national research strategy
Specific target (Indicators of success, deadline)	The nation-wide cancer mobilization plan identifies a number of quantitative indicators, corresponding to outcome goals in five years time. These indicators will be monitored on a yearly basis. **1. Prevention** The goal is to achieve the following: smoking should drop by 30% among the young, by 20% in the adult population, and there should be a 20% drop as well in the number of alcohol dependent adults. **2. Screening** Consistent screening strategies shall be deployed throughout the country. For breast cancer, 80% of all women aged 50 to 74 will be screened. For cervical cancer, the screening goal is 80% of all women aged 25 to 69. For colorectal cancer, the goal is to develop an experimental screening strategy which could subsequently be implemented on a larger scale. **3. Health care** 100% of all patients must gain access to customized care programs, with multidisciplinary care provided in the framework of a health care network. **4. Support** All patients must have access to quality information on support structures for cancer patients in their region. Procedures for "breaking the bad news" consultations and psychological support have to be upgraded for all patients. **5. Research** The main goal in this respect is to develop a cancer monitoring system which truly covers the whole population. French research in oncology must achieve levels of international excellence. On of its goals, in particular, is to ensure that at least 10% of all patients are included in clinical trials in reference centres. Cancer-specific genomic research must be carried out on a large scale: the goal here is to develop tumour libraries comprising up to 100,000 samples for clinical and biological analysis.
How the implementation / achievement of the plan evaluated	The National Cancer Institute shall publish annual reports on plan implementation. The plan is being monitored, from the very onset, by a public policy assessment mechanism

Hungary

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	The programme is expected to establish a healthier environment in which the incidence of cancer will decline, a more humane, better-equipped care system that operates up to contemporary standards will evolve, and up-to-date diagnostics will promote quick and effective complex treatment.
Governance, arrangement	
Macro-organization structures	
Governance	
Accountability for delivering plan	
Registry and surveillance	Arrange for ongoing surveillance and monitoring of the population's health. Evaluate the operation of the National Cancer registry.
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	
Allocation of the fund	
New technology	
Pharmaceutical	
Human resources	
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	
Research	
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Undertake activities in order to control smoking
Tobacco - smoke cessation	Put in place effective quit smoking programmes
Tobacco - education	
Tobacco - taxation	
Alcohol	Enhance activities aimed at preventing people from alcohol abuse
Unhealthy diet - fruit and vegetable intake	Promote the development of healthy dietary habits
Unhealthy diet - education and promotion	Promote active physical exercise on a daily basis and physical education at school.
Physical activity	Enhance activities aimed at preventing people from excessive sunbathing
Exposure to sunlight	Achieve decrease in the proportion of environmentally harmful factors
Occupation and environment	

Hungary *continued*

Items	Summaries from NCCP
Screening	
Breast cancer - age	45–65 years
Breast cancer - frequency	every second year
Cervical cancer - age	25–65 years
Cervical cancer - frequency	every third year
Colon cancer - age	50–70 years
Colon cancer - frequency	every second year
Others	oral cavity screening, prostate gland screening, skin screening
Other education	
Other Promotion	
Structure	
Proposed organisational changes of service delivery	Create a system of county-level and regional cancer care centres that ensures equity in access to care
Multi-disciplinary teams	Set up multidisciplinary cancer care teams and to insert their terms of reference into institutional operating rules
Development of networks	Create IT network for the follow-up of patient pathways in all forms of care delivery.
Care	
Availability of diagnostic and general treatment	Develop the conditions for state-of-art tumour diagnosis.
Availability of palliative and rehabilitation care	Undertake the revision of ontological continuing care facilities. Establish pain clinics at each regional and county-level cancer care centre
Availability of innovative care (technologies and drugs)	Ensure imaging techniques are applied with appropriate quality and efficiency
Evidence-based guidelines	
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	Certify institutions and care settings that are involved in the provision of cancer treatment and care, taking into account European accreditation criteria
Systems for quality assurance and control	
general care	Improving quality of cancer care through evolving a unified system of cancer treatment centres
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Organise thematic continuing education sources for primary health care personnel on the basic principles and practices of cancer care
Palliative care	Launch continuing education for nursing and allied health personnel working in the fields of hospice care
Supporting patients and improving patient knowledge on cancer	Organize comprehensive information and awareness raising programs
Cancer research	Promote research on diagnostic and therapeutic procedures
Specific target (Indicators of success, deadline)	
How the implementation / achievement of the plan evaluated	

Ireland

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	A vision of an Ireland that will have a system of cancer control to reduce cancer incidence, morbidity and mortality rates relative to other EU15 countries by 2015. Irish people will practice health-promoting and cancer-preventing behaviours and will have access to early cancer detection and screening. There will be a network of equitable, accessible cancer treatment facilities and Ireland will become a recognised location for cancer education and research.
Governance, arrangement	
Macro-organization structures	
Governance	Develop a third National Cancer Forum to develop and implement of cancer services
Accountability for delivering plan	
Registry and surveillance	Develop a cancer surveillance system that will build on the existing system of cancer registration. Ensure that a minimum national dataset should be collected for all cases of cancer
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	
Allocation of the fund	
New technology	
Pharmaceutical	
Human resources	
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	
Research	Fund for cancer research at national level
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Ban on smoking in indoor workplaces
Tobacco - smoke cessation	Provide nicotine replacement therapy for free to all medical card holders.
Tobacco - education	
Tobacco - taxation	Increase duty on cigarettes each year above the rate of inflation
Alcohol	Reduce the consumption of alcohol
Unhealthy diet - fruit and vegetable intake	Identify affordability and lack of accessibility to fruit and vegetables
Unhealthy diet - education and promotion	Raise awareness of the links between diet and cancer
Physical activity	Implement promoting physical activity
Exposure to sunlight	Reduce exposure to ultraviolet radiation, regulate sun bed use
Occupation and environment	Aware radon measurements
Screening	
Breast cancer - age	50–69 years
Breast cancer - frequency	every second year
Cervical cancer - age	25–60 years
Cervical cancer - frequency	in a five years interval
Colon cancer - age	50–74 years
Colon cancer - frequency	–
Others	prostate cancer screening (under review)
Other education	
Other Promotion	

Ireland *continued*

Items	Summaries from NCCP
Structure	
Proposed organisational changes of service delivery	Designate eight Cancer Centres that each serve a minimum population of 500,000.
Multi-disciplinary teams	Ensure cancer care provision by multidisciplinary teams covering the modalities of radiation therapy
Development of networks	All cancer care should be delivered through a national system of four Managed Cancer Control Networks
Care	
Availability of diagnostic and general treatment	Develop specific programmes that promote early detection of cancer. Improve cancer information services in primary care.
Availability of palliative and rehabilitation care	Ensure comprehensive specialist palliative care service including psychotherapy in each Managed Cancer Control Network.
Availability of innovative care (technologies and drugs)	Establish the National Network for Radiation Oncology Services to ensure that cancer services are fully integrated
Evidence-based guidelines	Establish site-specific multidisciplinary groups at a national level to develop guidelines for quality in major cancers.
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	Develop a system of licensing and accreditation of Cancer Centres and services
Systems for quality assurance and control	
general care	Establish a National Framework for Quality in Cancer Control
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Develop continuing medical education and professional development programmes for primary care professionals
Palliative care	Provide ongoing training for cancer team members to ensure effectiveness in the management of psychosocial distress in cancer patients.
Supporting patients and improving patient knowledge on cancer	Recommend educating the public about early detection and the importance of recognising symptoms, performing self-examination. Develop a code of practice for self-help groups, support groups and support centres.
Cancer research	Develop a specific plan for cancer research. Improve clinical trial entry for patients. Establish a national tissue bio bank to support research and service delivery. Establish a national cancer research database.
Specific target (Indicators of success, deadline)	19 indicators are specified 1 Percentage of the population who are smokers by age, sex and social class 2 Percentage of the adult and childhood populations who are overweight or obese by age, sex and social class 3 Percentage of the population who consume more than the recommended alcohol weekly limits by age, sex and social class 4 Incidence of major site-specific cancers, to include at a minimum lung, breast, prostate and colorectal cancer 5 Incidence of invasive and in-situ melanoma 6 Uptake of screening and incidence of interval breast cancers in populations covered by Breast Check 7 Percentage of women, in the target age-groups, for whom population based cervical cancer screening is available 8 Percentage uptake of screening in areas covered by the Irish Cervical Screening Programme 9 Stage of presentation of common cancers: appropriate stage indicators should be defined for lung, breast, colorectal and cervical cancers 10 Percentage of patients with cancer whose care is consistent with national, multidisciplinary guidelines, as developed by HIQA 11 Trends in quality of life for cancer patients, determined by ongoing quality of life measurement, at different stages in the care pathway for major cancers 12 Waiting times from diagnosis to definitive treatment for major cancers 13 Percentage of patients waiting for longer than one month from the time of diagnosis to the start of treatment

Items	Summaries from NCCP
	14 Percentage of breast cancer patients undergoing therapeutic surgical procedures who do so in a designated breast cancer treatment centre 15 Survival rates: a. 5-year Relative Survival Rate for Breast Cancer b. 1-year Relative Survival Rate for Lung Cancer c. 5-year Relative Survival Rate for Prostate Cancer d. 5-year Relative Survival Rate for Colorectal Cancer 16 Mortality rates: a. Direct Age Standardised Mortality rate (5-year, all ages) for all causes of cancer b. Direct Age Standardised Mortality rates (5-year, all ages) for the top six causes of cancer mortality 17 Percentage of cancer patients seen by a member of a Specialist Palliative Care Team 18 Percentage of cancer patients dying by place of death (home, hospice, hospital) 19 Percentage of cancer patients participating in clinical trials
How the implementation / achievement of the plan evaluated	Present a report on policy indicators each year to the National Cancer Forum.

Italy

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	Basic principles: 1) to avoid the avoidable neoplasia; 2) to reduce mortality deriving from tumours whose early diagnosis increases survival; 3) to provide care of high-quality for curable neoplasia; 4) to relieve pain and other symptoms and improve quality of life of patients and their families
Governance, arrangement	
Macro-organization structures	Introduce national and regional cancer network
Governance	Introduction of Commissione Oncologica Nazionale (National Oncology Commission) to assess and to implement cancer plan
Accountability for delivering plan	
Registry and surveillance	Consolidate the existing Tumour Registers (TR). Increase the information of the existing TR and improve the use of the TR data
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	
Allocation of the fund	
New technology	Allocate 198 million Euros to replace super-obsolete radiotherapy equipments
Pharmaceutical	Invest in drugs with a careful cost-benefit analysis. It would be important to create a dedicated fund for the high cost therapies In order to allow an advanced bio-molecular characterization of different tumour types by predictive factors in responding to classical or innovative biological therapies, so in order to apply the "targeted therapies", diagnostic entries of excellence must be strengthen. Such tests must be included in the "formulary of tests"
Human resources	
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	
Research	
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Protection from second-hand smoke in public places and working environments
Tobacco - smoke cessation	Develop programs for smoking detoxification in working environments
Tobacco - education	Strengthen educational interventions in schools and public places
Tobacco - taxation	Enhance fiscal and pricing policies on tobacco
Alcohol	Promote campaigns to inform on the damages deriving from alcohol.
Unhealthy diet - fruit and vegetable intake	
Unhealthy diet - education and promotion	Develop educational activity for children on nutrition
Physical activity	Increase the time allocated to children and adolescents' physical activity
Exposure to sunlight	Promote avoidance of unnecessary exposure to sunlight
Occupation and environment	Promote control of carcinogens

Italy *continued*

Items	Summaries from NCCP
Screening	
Breast cancer - age	50–69 years
Breast cancer - frequency	every second year
Cervical cancer - age	25–64 years
Cervical cancer - frequency	every third year
Colon cancer - age	50–74 years
Colon cancer - frequency	–
Others	–
Other education	
Other Promotion	
Structure	
Proposed organisational changes of service delivery	
Multi-disciplinary teams	Strong integration between specific treatments and support therapies at each stage
Development of networks	Develop a regional network of palliative care
Care	
Availability of diagnostic and general treatment	Identify operational mechanisms able to strongly integrate GPs, oncology network, palliative care, pain relief therapy and domiciliary care providers
Availability of palliative and rehabilitation care	Promote the activation of psychological support services. Ensure availability and accessibility of opioids, especially oral morphine
Availability of innovative care (technologies and drugs)	On condition that these drugs be used appropriately, they should be available with no bureaucratic or economic limitations
Evidence-based guidelines	
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	Create a system of institutional accreditation and of quality of healthcare provider.
Systems for quality assurance and control	
general care	Establish a quality assurance system of cancer surgery
Palliative care	Promote psychological support services through ad-hoc trained and allocated personnel
HR	
Education and continuous training to health care providers	
general care	Recommend an integrated training plan which involves all the individuals particulate in planning and implementing basic, specific, and continuous education programme
Palliative care	
Supporting patients and improving patient knowledge on cancer	Create tools for sharing information on curative, assistance and support pathways of each patient
Cancer research	Research conducted by the Italian Medical Oncology Association
Specific target (Indicators of success, deadline)	
How the implementation / achievement of the plan evaluated	

Lithuania

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	Organise and perform cancer prophylactics, ensuring high-quality early diagnostics of oncological diseases. Ensure valuable treatment of oncological diseases. Reducing the disease negligence. Providing all the medical staff and residents with oncological information. Reduce the number of those being sick with cancer, their death rates and the cases of being incapable.
Governance, arrangement	
Macro-organization structures	
Governance	Vilnius University Institute of Oncology and Clinics of Kaunas University of Medicine have responsibilities for providing cancer care
Accountability for delivering plan	
Registry and surveillance	Cancer data collected by the Lithuanian Cancer Registry
Financing	
Current funding sources for cancer care as indicated in the plan	NCCP is funded by the National Budget of Republic of Lithuania; Funds of National Investment Program; Stock Budget of Compulsory Health Insurance
Propose funding to implement in the plan including additional funding	
Allocation of the fund	
New technology	
Pharmaceutical	
Human resources	
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	
Research	
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	
Tobacco - smoke cessation	
Tobacco - education	Promote stop smoking by media campaign
Tobacco - taxation	
Alcohol	
Unhealthy diet - fruit and vegetable intake	
Unhealthy diet - education and promotion	Enhance the right eating habits by media campaign
Physical activity	
Exposure to sunlight	
Occupation and environment	

Lithuania *continued*

Items	Summaries from NCCP
Screening	
Breast cancer - age	50–64 years
Breast cancer - frequency	–
Cervical cancer - age	35–60 years
Cervical cancer - frequency	–
Colon cancer - age	–
Colon cancer - frequency	–
Others	–
Other education	
Other Promotion	
Structure	
Proposed organisational changes of service delivery	
Multi-disciplinary teams	Promote treatment provided by multidisciplinary teams at Personal Health Care Institutions
Development of networks	
Care	
Availability of diagnostic and general treatment	Ensure effective diagnosis by primary care sector. Improve GPs' ability to diagnose early
Availability of palliative and rehabilitation care	Organise effective palliative care to help solve physical, psychosocial and spiritual problems
Availability of innovative care (technologies and drugs)	Renovate technologies for treatment for cancer. Expand infrastructure of radiotherapy to provide higher quality treatment
Evidence-based guidelines	Ensure the effective treatment of oncological patients with methods based on scientific evidence
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	
Systems for quality assurance and control	
general care	Develop quality assurance system of cancer care and cancer surgery
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Provide continuing education for GPs, therapists, surgeons, and nurses
Palliative care	
Supporting patients and improving patient knowledge on cancer	Provide cancer education for public
Cancer research	Perform scientific research base on the direction of scientific activities that are provided and approved by the government
Specific target (Indicators of success, deadline)	1. Reduce death rate of cancer of breast and cervix of uterus by 15 percent; 2. Reduce mortality rate of cancer of cervix of uterus reduced by about 30 percent; 3. Increase up to 20 percent of early diagnosed malignant tumour cases; 4. Reduce neglected malignant tumours by about 20 percent; 5. Up to 80 percent of women will take screening programmes; 6. Increase by 2–5 percent of 5-year-survival rate of cancer
How the implementation / achievement of the plan evaluated	Programme implementation: 2003-2010

Malta

Items	Summaries from NCCP
Key challenges identified in the plan	About one in three people in the Maltese Islands will develop cancer at some stage in their lives. One in four will die of cancer. Therefore, better prevention of cancer, better detection of cancer and better treatment and care, matter to us all.
Aims and objectives	A comprehensive National Cancer Plan needs to promote efforts to achieve the following three aims: • to save more lives • to ensure people with cancer get the right professional support and care as well as the best treatments • to build for the future investment in the cancer workforce, including research activities, to ensure that cancer care in Malta maintains the desired and expected standards. The following are suggested three new commitments that will need to be taken up on a national level to ensure amelioration in and the effectiveness of cancer care: • a focus on health promotion to address the risks for cancer: lifestyle, environmental, occupational, socio-economic factors • a consolidation and improvement of the current service provision targets: waiting times for diagnosis and treatment • an extra investment and efforts in the hospice and specialist palliative care sectors. The aim is to ensure equal access to specialist palliative care services by whoever needs it and from wherever it is required.
Governance, arrangement	
Macro-organization structures	
Governance	The design and consultation of the National Cancer Plan needs to be initially inspired and later coordinated by a National Advisory Committee.
Accountability for delivering plan	
Registry and surveillance	Enhance National Cancer Registry
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	
Allocation of the fund	
New technology	Invest in extra equipment for diagnosis and treatment such as CT and MRI scanners
Pharmaceutical	
Human resources	Invest in training and support especially in palliative care
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	
Research	
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Sustain a smoke-free indoor environment other than the workplace or public places
Tobacco - smoke cessation	Encourage the cessation of smoking through campaigns such as Quit & Win campaign
Tobacco - education	Strengthen educational interventions in schools and public places
Tobacco - taxation	Sustain annual increases in tobacco tax at above the rate of inflation
Alcohol	
Unhealthy diet - fruit and vegetable intake	Promotion campaigns to encourage people to eat more fruit and vegetables.
Unhealthy diet - education and promotion	Promote creative healthy cooking at the community level
Physical activity	Promote campaigns in the participation in sport and physical activity
Exposure to sunlight	
Occupation and environment	

Malta *continued*

Items	Summaries from NCCP
Screening	
Breast cancer - age	50–69 years
Breast cancer - frequency	–
Cervical cancer - age	(under review)
Cervical cancer - frequency	–
Colon cancer - age	(under review)
Colon cancer - frequency	–
Others	–
Other education	
Other Promotion	
Structure	
Proposed organisational changes of service delivery	
Multi-disciplinary teams	Promote treatments provided by multi-disciplinary teams which bring together all relevant professionals
Development of networks	Improve communications between primary and secondary care.
Care	
Availability of diagnostic and general treatment	Maintain and improve waiting time targets. Redesign and streamline existing services to reduce delays
Availability of palliative and rehabilitation care	Ensure equal access to specialist palliative care and home-based palliative care services.
Availability of innovative care (technologies and drugs)	Install new equipment for diagnosis and treatment, such as mammography, CT and MRI scanners
Evidence-based guidelines	Development of comprehensive packages of guidance on services. Translation of this guidance into measurable national standards.
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	
Systems for quality assurance and control	
general care	Appraisal the future demands for chemotherapy, and of national standards on chemotherapy
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Train primary health care professionals to emphasize symptoms profiles and referral strategies. Enhance face-to-face communication skills of staff in the cancer services
Palliative care	Provide additional training in communication skills and in the provision of psychological support
Supporting patients and improving patient knowledge on cancer	Improve patient experience at all stages in the care pathway. Educate for awareness of risk factors of breast cancer
Cancer research	Identify needs and support clinical trials. Promote research into causes of high incidence of female breast cancer
Specific target (Indicators of success, deadline)	
How the implementation / achievement of the plan evaluated	

The Netherlands

Items	Summaries from NCCP
Key challenges identified in the plan	It is generally known that there are waiting lists for certain types of examinations and treatments for cancer, and that not all patients have the same access to expensive drugs. The population of the Netherlands is less aware of the fact that numerous individuals and organizations who are involved in cancer control on a daily basis bring their knowledge, insights, and passion to their job. They do not operate mutually agreed framework, on the basis of common priorities, or within a comprehensive management structure. This carries the risk of insufficient coherence and less than optimum performance. Work together with all relevant parties to encounter cancer in general, more specific towards better quality of life and life expectancy
Aims and objectives	The Plan covers all aspects of cancer control, from prevention and diagnosis to aftercare, as well as education, psychosocial care, continuing professional education and research. It offers coherent priorities and measurable objectives. It also indicates how the objectives are to be achieved, and by whom and how the results will be assessed.
Governance, arrangement	
Macro-organization structures	
Governance	
Accountability for delivering plan	
Registry and surveillance	Cancer registry will be able to collect the additional data required for the assessment of the cancer guidelines
Financing	
Current funding sources for cancer care as indicated in the plan	The approximate annual cost of cancer care amounts to 1.5 billion Euros
Propose funding to implement in the plan including additional funding	NCCP should be financed by the reallocation of existing resources and from efficiency gains.
Allocation of the fund	
New technology	
Pharmaceutical	
Human resources	
Infrastructure	
Population based prevention and promotion	Fund various screening programmes
Registry and surveillance	
Research	Investment in research in order to enhance the effectiveness of prevention activities.
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	By law it is forbidden to smoke in public areas
Tobacco - smoke cessation	Implementation of effective interventions for giving up smoking
Tobacco - education	Mass media campaigns against smoking
Tobacco - taxation	Increase duty by at least 50 cents every two years
Alcohol	Mass media campaigns to reduce alcohol use
Unhealthy diet - fruit and vegetable intake	Ensure adequate fruit and vegetables intake
Unhealthy diet - education and promotion	Endure healthier range of snacks, drinks, and meals
Physical activity	Mass media campaigns taking an adequate amount of exercise
Exposure to sunlight	Mass media campaigns promote sensible sunbathing
Occupation and environment	

The Netherlands *continued*

Items	Summaries from NCCP
Screening	
Breast cancer - age	(Yes)
Breast cancer - frequency	every second year
Cervical cancer - age	(Yes)
Cervical cancer - frequency	–
Colon cancer - age	–
Colon cancer - frequency	–
Others	–
Other education	
Other Promotion	
Structure	
Proposed organisational changes of service delivery	
Multi-disciplinary teams	A visitation/accreditation system for multidisciplinary coordinated care being tested in a pilot study
Development of networks	Coordinated chain care, continuum of multidisciplinary healthcare.
Care	
Availability of diagnostic and general treatment	Develop an implementation plan for early detection
Availability of palliative and rehabilitation care	Ensure effective psychosocial care and rehabilitation
Availability of innovative care (technologies and drugs)	
Evidence-based guidelines	Develop, adjust, implement and assess guidelines, both in terms of methodology and content
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	Set up a accreditation system for all hospitals in which cancer is diagnosed and/or treated
Systems for quality assurance and control	
general care	By 2005, the quality criteria for multi-disciplinary coordinated chain care will be ready
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Provide supplemental educational programmes for cancer specialists and nurses including communication skills
Palliative care	Enhance the existing supplementary education programmes for caregivers in the area of palliative care and/or oncology.
Supporting patients and improving patient knowledge on cancer	Continually inform population about how cancer can develop, as well as the risk factors
Cancer research	Improve researchers' career prospects and the financing of cancer research
Specific target (Indicators of success, deadline)	The NPK Steering Group will establish a set of indicators in 2005.
How the implementation / achievement of the plan evaluated	

Northern Ireland

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	The aim of this Cancer Control Programme is to set out measures to help to reduce the number of cases of cancer and cancer deaths, and to help improve the quality of life of cancer patients through the systematic and equitable implementation of evidence based strategies for prevention, early detection, diagnosis, treatment and palliative care, making the best use of the available resources.
Governance, arrangement	
Macro-organization structures	Develop Cancer Network to make plans and delivery of cancer services
Governance	Each Local Commissioning Group should have established a professional Cancer Lead post to provide local strategic leadership in developing cancer services.
Accountability for delivering plan	
Registry and surveillance	Funding arrangements to support the work of the Registry in the future.
Financing	
Current funding sources for cancer care as indicated in the plan	Allocated capital funding for cancer services, with a total of approximately 73 million Pounds for the period 1996/97 to 2004/05
Propose funding to implement in the plan including additional funding	
Allocation of the fund	
New technology	
Pharmaceutical	
Human resources	
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	Address the funding arrangements that will support the work of the Registry in the future.
Research	
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Smoke-free workplaces and public spaces
Tobacco - smoke cessation	Increase provision of smoking cessation services
Tobacco - education	Reduce smoking levels in younger people as part of an overall programme of lifestyle skills.
Tobacco - taxation	
Alcohol	
Unhealthy diet - fruit and vegetable intake	Increase fruit and vegetable consumption using vouchers
Unhealthy diet - education and promotion	Improve the nutritional status of school meals
Physical activity	Encourage people to live more active lives
Exposure to sunlight	Develop a revised skin cancer/melanoma prevention programme
Occupation and environment	

Northern Ireland *continued*

Items	Summaries from NCCP
Screening	
Breast cancer - age	50–64 years
Breast cancer - frequency	every third year
Cervical cancer - age	25–49 years (50–64 years)
Cervical cancer - frequency	every third year (every five year)
Colon cancer - age	–
Colon cancer - frequency	–
Others	Bowel cancer screening
Other education	
Other Promotion	The Department should consider the case for the introduction of a human papilloma virus vaccination programme for young girls, when available, and in line with recommendations of the National Vaccination Committee.
Structure	
Proposed organisational changes of service delivery	Set up a regional mechanism for a comprehensive and coordinated approach to competency based cancer workforce planning and development
Multi-disciplinary teams	Develop standards for the effective working of local and regional multidisciplinary teams
Development of networks	Ensure that clinical networks are established for all cancer types and that these are appropriately resourced
Care	
Availability of diagnostic and general treatment	Enhance service provision in the community which extends into the evening and the weekends
Availability of palliative and rehabilitation care	Ensure palliative care provision by local and regional multidisciplinary teams. Create a network of GP facilities in palliative care
Availability of innovative care (technologies and drugs)	Focus in future advances in chemotherapy and radionuclide combinations.
Evidence-based guidelines	Develop action plans for implementation of recommendations for best practice contained in NICE guideline on improving supportive and palliative care
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	Identify and implement recognised accreditation frameworks for diagnostic services
Systems for quality assurance and control	
general care	Develop mechanisms to measure the quality of care
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Deliver advanced communication skills training through a phased implementation programme
Palliative care	Develop specialist posts in primary care settings in palliative and supportive care
Supporting patients and improving patient knowledge on cancer	Provide evidence based follow-up and re-referral criteria for all cancer patients. Increase public awareness of early symptoms of cancers
Cancer research	Establish a strategic process for overseeing and facilitating cancer research. Develop regionally agreed minimum data sets for each cancer type
Specific target (Indicators of success, deadline)	To achieve a 25% reduction in age-adjusted cancer incidence by the year 2025. Increase the 5 year cancer survival rates to the levels of the best European countries
How the implementation / achievement of the plan evaluated	The Cancer Control Programme will be subject to review on an ongoing basis. Progress against the recommendations will be published within 3 years of publication with a formal review of the recommendations in 2011

Norway

Items	Summaries from NCCP
Key challenges identified in the plan	Cancer is and will continue to be a major national challenge, both for the individual who is affected, the family, the preventive programmes, all levels of the health services, and society as a whole.
Aims and objectives	The primary goal of the Cancer Strategy is to meet the cancer challenge in a proactive and holistic manner by facilitating improved quality and competencies, adequate capacity and equality of access, appropriate organisation and better cooperation within and between all areas relating to cancer.
Governance, arrangement	
Macro-organization structures	
Governance	The Directorate for Health and Social Affairs has been given national responsibility for coordination of the further follow-up of the Cancer Strategy
Accountability for delivering plan	
Registry and surveillance	Continue to operate Cancer Registry of Norway
Financing	
Current funding sources for cancer care as indicated in the plan	The National Cancer Plan (1999 – 2003) contributed with just over NOK 2 billion to a public strengthening of cancer-related areas
Propose funding to implement in the plan including additional funding	The need for additional, extraordinary funding will be assessed continuously in the normal budget processes.
Allocation of the fund	
New technology	
Pharmaceutical	
Human resources	
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	
Research	Ongoing strategic investment in cancer research
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Prevention of cancer related to tobacco use
Tobacco - smoke cessation	Develop a national strategy plan for smoking cessation
Tobacco - education	Ensure stop smoking programmes, educational programmes in schools,
Tobacco - taxation	
Alcohol	Prevent cancer related to alcohol
Unhealthy diet - fruit and vegetable intake	
Unhealthy diet - education and promotion	Improve diet in the nation
Physical activity	Prevent cancer by improve physical activity
Exposure to sunlight	Prevent cancer by radiation protection
Occupation and environment	Evaluate measures against radon inside buildings
Screening	
Breast cancer - age	50–69 years
Breast cancer - frequency	every second year
Cervical cancer - age	25–69 years

Norway *continued*

Items	Summaries from NCCP
Cervical cancer - frequency	every third year
Colon cancer - age	–
Colon cancer - frequency	–
Others	–
Other education	
Other Promotion	
Structure	
Proposed organisational changes of service delivery	
Multi-disciplinary teams	Evaluate the correlation between the treatment modalities of surgery, radiation therapy and medication
Development of networks	Processes targeting function division and multi-regional collaboration shall continue
Care	
Availability of diagnostic and general treatment	Ensure good cooperation, communication and continuity in the patient's meeting with the health services
Availability of palliative and rehabilitation care	Prioritise rehabilitation in general. Promote standards for palliative treatment
Availability of innovative care (technologies and drugs)	Improve capacity and quality assurance of radiation therapy
Evidence-based guidelines	
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	Establish National Medical Quality Registers
Systems for quality assurance and control	
general care	Expand national action program for improving quality of cancer care and quality assurance
Palliative care	Draft standards for palliative treatment as part of the National action programmes
HR	
Education and continuous training to health care providers	
general care	Ensure a correct quantitative and high qualitative provision of education and competence building for healthcare professionals
Palliative care	
Supporting patients and improving patient knowledge on cancer	Facilitate good cooperation between the cancer patient's support network, including family and the voluntary sector
Cancer research	Continue to conduct cancer research with good framework conditions through the established research funding systems
Specific target (Indicators of success, deadline)	Yes (No overall targets specified, each action has indicators and target)
How the implementation / achievement of the plan evaluated	

Poland

Items	Summaries from NCCP
Key challenges identified in the plan	Reducing the increase in cancer incidence rates Achieving of indicators of early cancer detection on average European level Achieving of indicators of treatment effectiveness on average European level; Building capacity for implementing the progress of knowledge on causes and development mechanisms of cancer in oncological practice; Establishing the permanent monitoring system for tracking the effectiveness of cancer control, both on the national and regional level.
Aims and objectives	The Programme's goals are to: bring down rising cancer rates; obtain an average European level in early cancer diagnosing; obtain an average European level in successful cancer treatment; create conditions for the practical application in cancer treatment of advanced knowledge about the causes and evolution of malignant carcinomas; and create a permanent monitoring system to survey cancer treatment results on the national and regional scale. Other aims and objectives include: Development of primary prevention of cancer, especially related to tobacco smoking and unhealthy diet Developing the population programs for early cancer detection, particularly cervical cancer, breast cancer, colon cancer and selected cancers in children population. Increasing availability of early detection methods and development of procedures ensuring the quality of diagnostics and cancer treatment; Standardization of radial treatment procedures; Supplementing and replacing the exploited the radiotherapy and cancer diagnostics equipment; Popularization of combined treatment methods; Development and popularization of most recent methods of patients rehabilitation, reducing the distant effects of cancer and palliative therapy in oncology; Development and popularization of including oncology into curriculum of pre-graduate and postgraduate courses for medical doctors, dentists, nurses, midwives and representatives of other medical professions; Improving systems of collecting the data on cancer diseases development level; Popularizing the knowledge on prevention, early detection and treatment of cancer.
Governance, arrangement	
Macro-organization structures	Cancer Control Council is Ministry's of Health advisory body on issues related to National Cancer Control Program. 2. The Council consists of: • Representative of Ministry of Health as a Council's Chairman Representative of National Health Fund; • Representatives of medical universities; • Four well recognized experts in oncology science. 3. Council members are appointed and dismissed by Minister of Health. 4. Council tasks include: • Reviewing the amount of funds designated on program's realization; • Annual analysis of program's realization • Reviewing project's timeline and report; • Developing scope of actions necessary for program's realization; • Reviewing the projects of solutions related to program's realization; • Reviewing activities conducted by subjects responsible for program's realization; • Reviewing the documentation concerning requirements related to tender contests. 5. The Council is acting on the basis of self-adopted by-laws approved by Minister of Health.
Governance	Program is being implemented by the Ministry of Health
Accountability for delivering plan	Minister of Health: 1) Specifies the amount of funds designated for program's realization in subsequent three years; 2) Prepares project of timeline for activities performed within the Program in the subsequent budget year alongside with directives for Program activities for following two years; 3) Coordinates the cooperation between all subjects realizing the Program's activities; 4) Chooses subjects responsible for Program's activities realization; Program activities can be realized by all legal entities operating in health care system. Subjects responsible for Program's activities realization are being chosen through tender contests conducted by Minister of Health. 5) Supervises the quality of services financed within the Program; 6) Prepares the annual reports on Program's realization; 7) Secures administrative support for the Program's realization. Minister of health presents to the Council of ministers a project timeline for planned activities for the subsequent budget year and project's directives for the following two years alongside with annual reports on Program's realization. Council of Ministers adopts as a resolution the timeline of Program's activities for the subsequent budget year and the Program directives for following two years. Minister of health presents to the Parliament of Republic of Poland, not later than 31st May, the Annual report on Program's realization for preceding year, timeline of Program's activities within subsequent budget year alongside with Program directives for following two years.
Registry and surveillance	National Cancer Registry

Items	Summaries from NCCP
Financing	
Current funding sources for cancer care as indicated in the plan	Program is being financed by the state budget and auxiliary sources. The joint outlays for Program's financing will amount to 300.000.000 Polish Zloty. State budget's outlays for realization of program activities shall not be lower than 250.000.000 Polish Zloty each year.
Propose funding to implement in the plan including additional funding	Planned outlays for realization of activities in domain of early cancer detection have to constitute: 1) 20 % of Program's annual expenses during the first and second year; 2) 25 % of Program's annual expenses during the third an fourth year; 3) 30 % of program's annual expenses during the fifth and sixth year; 4) 35 % of program's annual expenses during subsequent years to Program's finalization
Allocation of the fund (data from 2008, in Polish Zloty)	
New technology	177 398 000 Polish Zloty (71%)
Pharmaceutical	-
Human resources	7 571 222 Polish Zloty (3%)
Infrastructure	15 150 400 Polish Zloty (6%)
Population based prevention and promotion	46 765 778 Polish Zloty (18,6%) 42 765 778 Polish Zloty (17%) 4 000 000 Polish Zloty (1,6%)
Registry and surveillance	3 132 606 Polish Zloty (1,25%)
Research	-
Cost sharing	The allocation of funds is determined by Minister of Health, following the advice from Cancer Control Council
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Legislative process in progress – law amendment to introduce a total smoking ban in public places
Tobacco - smoke cessation	1. Telephone Helpline for Smokers 2. Training physicians in treatment of tobacco addiction 3. Pilot program of treating the tobacco dependence syndrome within certain divisions of National Health Fund
Tobacco - education	"Rzu_ palenie razem z nami" (Let's quit smoking together) Educational population action
Tobacco - taxation	Adapting the excise tax to the EU level
Alcohol	"Znajd_ dobr_ met_" (Find the right finish line) - Action conducted among students by University Sports Association in Poland
Unhealthy diet - fruit and vegetable intake	"5 razy dziennie warzywa i owoce" (5 times a day – fruit and vegetables) Action
Unhealthy diet - education and promotion	Develop prevention as a means against improper nutrition
Physical activity	"Chodz_ biegam wi_c jestem" (I walk, I run, therefore I am) Action
Exposure to sunlight	
Occupation and environment	Improvement of State Sanitary Inspectorate personnel's competences in the field of cancer control in worksites in Poland
Screening	
Breast cancer - age	Female in age 50-69
Breast cancer - frequency	Every 2 years
Cervical cancer - age	Female in age 50-69
Cervical cancer - frequency	Every 3 years
Colon cancer - age	Male and Female in age 50-65
Colon cancer - frequency	Every 10 years
Others	–
Other education	
Other Promotion	

Poland *continued*

Items	Summaries from NCCP
Structure	
Proposed organisational changes of service delivery	
Multi-disciplinary teams	Better access to integrated care
Development of networks	
Care	
Availability of diagnostic and general treatment	Raise access to early cancer diagnosing. Introduce public early diagnosis programme
Availability of palliative and rehabilitation care	Introduce modern rehabilitation technique and measures to ease the after-effects of cancer treatment and palliative care
Availability of innovative care (technologies and drugs)	Introduction of radiotherapy standard. Replacement of radiotherapy and diagnosing equipment
Evidence-based guidelines	
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	
Systems for quality assurance and control	
general care	Introduction of quality assurance in cancer diagnosing and treatment
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Increase scope of oncology training in graduate and postgraduate medical, dental, nursing, obstetrical and medicine-related curricula
Palliative care	
Supporting patients and improving patient knowledge on cancer	Provide public instruction about cancer prevention, early diagnosing and treatment
Cancer research	
Specific target (Indicators of success, deadline)	
How the implementation / achievement of the plan evaluated	

Portugal

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	• Improve cancer epidemiologic surveillance and supply the structures with information systems; • Execute primary prevention trough promoting healthy lifestyles, i.e. fighting against tobacco and sedentary habits, and obesity prevention; • Program and implement nationwide, high quality, organized screening programs for the uterus, breast, colon and rectum; • Implement the "Oncology Integrated Referring Network – RRIO (Rede Referenciação Integrada em Oncologia)" and organize queue lists managing.
Governance, arrangement	
Macro-organization structures	The National Coordinating Body for Oncological Disease (CNDO – "Coordenação Nacional para Doenças Oncológicas"), integrated in the High Commissioner for Health is supported by the Following structures: - Support Technical group (GTA – " Grupo Técnico de Acompanhamento") - Five Regional Oncological Commissions (COR – " Comissões Oncológicas Regionais"), one in each of the five Health Regional Administrations (ARS – "Administração Regional de Saúde") - National Council for Oncology (CNO – "Conselho Nacional para a Oncologia") - Oncology Portuguese Instituts (IPO) Coordinating Comission (" Comissão Coordenadora dos IPO")
Governance	
Accountability for delivering plan	
Registry and surveillance	Enhance three regional cancer registries. Create COR oncologic registry workgroups during 2007
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	
Allocation of the fund	
New technology	
Pharmaceutical	
Human resources	
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	
Research	
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	The health promotion and disease prevention areas are considered a priority. Involving the COR in prevention programs as of beginning of 2008.
Tobacco - smoking free	
Tobacco - smoke cessation	
Tobacco - education	
Tobacco - taxation	Implementation of anti-Tobacco measures is among the foreseen prevention and health promotion actions
Alcohol	
Unhealthy diet - fruit and vegetable intake	
Unhealthy diet - education and promotion	Improve healthy eating habits from young children.
Physical activity	Enhance regular physical activity from young children.
Exposure to sunlight	
Occupation and environment	
Screening	
Breast cancer - age	50-69 years old
Breast cancer - frequency	Each 2 years
Cervical cancer - age	25-60 years old
Cervical cancer - frequency	At least one cervical cancer screening program in at least one health centre of each ARS.
Colon cancer - age	50-74 years old
Colon cancer - frequency	
Others	
Other education	
Other Promotion	

Portugal *continued*

Items	Summaries from NCCP
Structure	
Proposed organisational changes of service delivery	The IPO shall develop as reference Oncologic Centres, cooperating with the remaining regional health structures in order to execute their respective functions as reference structure in the RRIO.
Multi-disciplinary teams	The developing of multidiscipline structures will allow creating the necessary synergies to provide differentiated caring to the patients with the most varied oncologic pathologies.
Development of networks	Enhance the Oncology Integrated referring Network in order to integrated and globalizing perspective.
Care	
Availability of diagnostic and general treatment	
Availability of palliative and rehabilitation care	The palliative care must be considered as a fundamental part of the multi-disciplinary support provided to patients and not only as the treatment during the final period of the illnesses.
Availability of innovative care (technologies and drugs)	5-6 linear accelerators per million, should be adopted. Plan the expansion of radiotherapy. Replace all equipment, older than 10 years until 2010
Evidence-based guidelines	Standardize cancer guidelines for reducing medical errors. Create the diagnostic guidelines and monitoring guidelines for colon and rectal; breast; prostate and lung cancer These guidelines should be used as daily work tool in RRIO units Guidelines for colon and rectal, breast , prostate and lung cancer in elaboration during 2007
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	
Systems for quality assurance and control	
general care	Enhance mechanism of quality assistance for cancer care
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Enhance specialized professionals training for providing radiotherapy. Provide a wide offer of pre-graduation and post-graduation programs
Palliative care	
Supporting patients and improving patient knowledge on cancer	
Cancer research	• Monitor cancer epidemiology and the availability of generated information for research activities and participation in European projects in order to identify iniquities in cancer approach • Promote clinical trials that explore the questions related to therapeutic strategies. • Support the creation of tumour banks on a national level
Specific target (Indicators of success, deadline)	Promotion and primary prevention • Involving the COR in prevention programs as of beginning of 2008. Registry • Creation of the COR oncologic registry workgroups, during 2007. Screening • Creating each one of COR tracing workgroups, during 2007 • Breast cancer – defining the organizing model for the Direction for Tracing, during 2008 • Uterus cancer – implementing, in at least one Health centre, in each ARS, until de end of 2008 • Colon/Rectum Cancer - implementing, in at least one Health centre, in each ARS, until de end of 2009 RRIO and Waiting list management • Creating the workgroup and elaborating the document until the end of 2009 • Approval and implementation of the network during 2010 Radiotherapy • Creating the workgroup during 2007 • Replace all equipment, older than 10 years, until 2010 Recommendations for Diagnosis, Therapeutics and Monitoring • Start elaborating the therapeutic recommendations for Colon/Rectum, breast, prostate and lung tumours during 2007 • Conclusion and implementation beginning during 2008 of the recommendations elaborated during 2007 • Creation of new groups with similar objectives and goals for other pathologies during 2008.
How the implementation / achievement of the plan evaluated	

Scotland

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	
Governance, arrangement	Establish Scottish Cancer Group for providing leadership, direction, advice, and guidance for cancer service
Macro-organization structures	
Governance	Update the strategic programme for modernising information management and technology in the NHS Scotland. Set up an Information Task Group to develop better access to the information needed by people with cancer and their families.
Accountability for delivering plan	
Registry and surveillance	
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	Additional investment in new imaging equipment to aid cancer diagnosis.
Allocation of the fund	
New technology	Plan investment in services and staff on the basis of regional clinical need
Pharmaceutical	
Human resources	Allocate 100 million Pounds to encourage healthy diet
Infrastructure	
Population based prevention and promotion	Research funding to improve the palliative care
Registry and surveillance	
Research	
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Reduce smoking in public places
Tobacco - smoke cessation	Enhancing smoking cessation support programme with nicotine replacement therapy
Tobacco - education	Provide health education to shift attitudes and change behaviour on smoking
Tobacco - taxation	
Alcohol	Achieve a reduction in excess drinking levels for adults and young people
Unhealthy diet - fruit and vegetable intake	Double the average consumption of fruit and vegetables
Unhealthy diet - education and promotion	Reduce the proportion of fat and salt intake. Double the consumption of oily fish
Physical activity	Raise levels of regular physical activity
Exposure to sunlight	Promote campaigns warning the risks of unnecessary exposure to UV-radiation
Occupation and environment	Establish to maintain a watching brief of Chemo-prevention of cancer
Screening	
Breast cancer - age	Under age 75
Breast cancer - frequency	every third year
Cervical cancer - age	(Yes)
Cervical cancer - frequency	–
Colon cancer - age	50–69 years
Colon cancer - frequency	–

Scotland *continued*

Items	Summaries from NCCP
Others	prostate cancer, ovarian cancer, lung cancer, oral cancer (under review)
Other education	
Other Promotion	
Structure	
Proposed organisational changes of service delivery	Promote effective diagnosis by primary care sector
Multi-disciplinary teams	Develop integrated approaches of treatment
Development of networks	Fully functional cancer Managed clinical networks (MCNs) will be in place for all cancer services
Care	
Availability of diagnostic and general treatment	Achieve fair and equitable access to cancer drugs and other treatments
Availability of palliative and rehabilitation care	Assess comprehensive needs for palliative care. Provide palliative care with emotional and psychological support
Availability of innovative care (technologies and drugs)	Ensure that there is sufficient capacity of modern imaging equipment
Evidence-based guidelines	Implement the SIGN guideline across all clinical settings of palliative care
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	
Systems for quality assurance and control	
general care	Improve quality of care by the implementation of national clinical guidelines and monitoring of services
Palliative care	Implement the SIGN guideline across all clinical settings of palliative care
HR	
Education and continuous training to health care providers	
general care	Continuing improvement of capacity of primary care providers including nurses and pharmacists
Palliative care	All healthcare professionals should practise according to general palliative care principles. Continuing professional development in all aspects of palliative care should be actively supported by NHS Scotland
Supporting patients and improving patient knowledge on cancer	Establish patient's care pathway with better co-ordinated and managed.
Cancer research	Encourage more opportunities to develop a research career in epidemiology
Specific target (Indicators of success, deadline)	
How the implementation / achievement of the plan evaluated	The new NHS Scotland performance and accountability framework will provide the structure through which routine monitoring will be assessed and reported. Regional Cancer Advisory Groups and NHS Boards will be assessed against the deliverables set out in their annual cancer investment plans.

Spain

Items	Summaries from NCCP
Key challenges identified in the plan	Spain has a National cancer Strategy Need to provide and effectively coordinate services spanning prevention, early detection, and identification of high-risk groups, multidisciplinary treatment (including palliative care) and research. These aims should be pursued with underlying goals of equity, cohesion and homogeneity; therefore the need for a Cancer Strategy at the national level is apparent. This Cancer Strategy is a document to guide the regions on the development of their regional cancer plans and programs
Aims and objectives	• Reduce inequalities in risk factors and access to preventive services and quality clinics. • Develop patient-oriented Cancer Plan. • Address issues of rehabilitation, social integration and palliation. • Provide adequate information to policy-makers and planners to ensure their participation and therefore the implementation of the plan • Implement information and vigilance systems to collect robust and strong data with which to properly monitor trends. • Promote research in prevention, treatment, rehabilitation and palliation
Governance, arrangement	
Macro-organization structures	National Cancer Strategy Evaluation Committee
Governance	Ministry of Health and Consumption develop cancer related policies as a joint effort of Ministry of Health and Consumption (MSC: Ministerio de Sanidad y Consumo) and regional governments.
Accountability for delivering plan	Ministry of Health and Consumption
Registry and surveillance	Ministry of Health and Consumption with the Committee is responsible for the evaluation of the implementation of the Strategy in the regions
Financing	
Current funding sources for cancer care as indicated in the plan	No funds allocated to the National Cancer Strategy
Propose funding to implement in the plan including additional funding	
Allocation of the fund	No funds allocated to the National Cancer Strategy, only recommendations
New technology	Establish in each region a specific financing system to develop the objectives of the strategy a funding system for the acquisition of new technologies
Pharmaceutical	Establish in each region a specific financing system to develop the objectives of the Strategy: application of new treatments to guarantee accessibility and equity new technologies and treatment
Human resources	Invest in promotion of educational campaigns and training
Infrastructure	Establish several reference centres for the performance of certain complex procedures (ex. treatment with protons..) and provide additional funding for these procedures
Population based prevention and promotion	
Registry and surveillance	Maintain the existing research programs of RITCC (cooperative network for investigation in cancer) in tumour registries, tumour banks, epidemiology...
Research	Invest in support of research groups. Develop funding mechanisms to establish a stable network structure for cancer research (interregional level), to fulfil the objective of creation and consolidation of research groups
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	Tobacco-related objectives and interventions (see below) Run in every region public health interventions oriented to promote a healthy lifestyle and improve dietary habits. Priority: to reverse obesity trend in men and women
Tobacco - smoking free	Ensure compliance with valid regulations for smoking in public
Tobacco - smoke cessation	Smoking cessation measures (minimum counselling, personalized assistance, specialised care) based on needs
Tobacco - education	Preventive programmes in educational centres which aim to avoid the initiation of the smoking habit and promote healthy lifestyles
Tobacco - taxation	Promote legal action to increment tobacco price

Spain *continued*

Items	Summaries from NCCP
Alcohol	Promote lower alcohol intake among young people, reduce 3% alcohol intake in population between 25-60 years and 5% in population aged 18-24, promote alcohol-free leisure alternatives among young population, ensure compliance with alcohol regulation
Unhealthy diet - fruit and vegetable intake	Promote population consuming at least 5 portions of fruits and vegetables daily and reduce energy intake from saturated fats
Unhealthy diet - education and promotion	Promote educational strategies for health to reach general population through different channels, take action to finally implement nutritional education at schools, promote nutritional education from primary care
Physical activity	Promote increased physical activity among general population, encourage physical activity at schools
Exposure to sunlight	Reduce levels of exposure to UV radiation
Occupation and environment	Assess environmental exposure to carcinogens
Screening	Implement population-based breast cancer screening programs Implement follow-up programs for people with high risk of developing breast cancer, colorectal cancer and cervical cancer
Breast cancer - age	50–69 years
Breast cancer - frequency	Every second year
Cervical cancer - age	Recommendation: 25–60 years, but varies among regions
Cervical cancer - frequency	Recommendation: every third year. Current situation: no formal screening programs, but cytology included in regular gynaecologic checks
Colon cancer - age	Recommendation: 50–74 years Current situation: 3 regions have begun pilot screening programmes, while 9 have planned to start pilot programs in the near future.
Colon cancer - frequency	–
Others	Evaluation of individual and family risk for breast and colorectal cancer, including genetic studies and counselling for people with high hereditary risk
Other education	Recommends development of awareness campaigns among health professionals and general population of the benefits of early detection of CRC, when implementing a screening program. MSC and regional authorities should develop awareness campaigns among health professionals and general population of cervical cancer and the need for early detection
Other Promotion	Diffusion of the European Code Against Cancer
Structure	
Proposed organisational changes of service delivery	In hospitals where cancer is treated establish multidisciplinary teams (tumour committees), if they are not established already, for principal tumours. In hospitals with important number of cases, tumour committees will be established by tumour location
Multi-disciplinary teams	Every patient diagnosed of cancer must be treated by a multidisciplinary team with a reference figure to guide the patient through the whole care process
Development of networks	Promote that every health centre join an oncology network with all necessary treatments
Care	
Availability of diagnostic and general treatment	Promote every health centre to join an oncology network. Guarantee quality of cancer treatment and diagnosis. Establish clinical criteria of justified suspicion for main tumours, along with the referential diagnostic procedure and a fast track pathway to access it
Availability of palliative and rehabilitation care	Ensure all cancer patients receiving palliative care during advanced and terminal stages of disease, including palliative care support teams in hospitals and primary care facilities.
Availability of innovative care (technologies and drugs)	Recommend to provinces radiotherapy services for childhood cancer treatment. Recommendation: Establish in each region a specific financing system to develop the objectives of the Strategy: application of new treatments to guarantee accessibility and equity new technologies and treatment Innovation identified as a key element, however, needs to be analysed from a cost-effectiveness perspective

Spain *continued*

Items	Summaries from NCCP
Evidence-based guidelines	Promote development and implementation of clinical practice guidelines (which include the therapeutic and diagnostic procedures) through consensus by health professionals and scientific societies and based on the best evidence available. The process should be supported by HTA and take into account the previous experiences developed in this area.
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	
Systems for quality assurance and control	
general care	Establish consensus of scientific societies with uniform criteria to guarantee quality Hospitals which treat cancer patients (in full or in part) will establish an evaluation methodology for clinical results to track: survival according to phase of diagnosis, percentage of recurrence and surgical mortality at 30 days after the operation or during hospital admission.
Palliative care	Ensure that Primary Care and Hospital Management have quick channels for urgent care of these patients Hospital management will ensure availability of beds for palliative care patients
HR	
Education and continuous training to health care providers	
general care	Improve communication skills for professionals
Palliative care	Promote educational actions
Supporting patients and improving patient knowledge on cancer	Promote de development, in collaboration with scientific societies, patient organizations and volunteers, of information guides for patients that contain quality information about the different types of cancer, advice, oncology services, standards of care they can expect
Cancer research	Promote creation and consolidation of research groups. Promote homogeneous procedures for data collection and research
Specific target (Indicators of success, deadline)	Each specific objective has a performance/success indicator to evaluate the achievement of the objective
How the implementation / achievement of the plan evaluated	First evaluation upon 2 years after approval by the National Cancer Strategy Evaluation Committee. The results presented were presented in June 2008 to the Interregional Board (responsible for health of each region) which gave insights and finally approved the evaluation report. Further reviews to follow.

Switzerland

Items	Summaries from NCCP
Key challenges identified in the plan	Most of the country's population knows little about cancer, and even scientists and decision-makers are lacking crucial data. And opportunities are by no means equal. The likelihood of developing cancer or receiving a diagnosis of cancer differs according to region, canton, or socioeconomic class. Differences in lifestyles may be responsible, but also different health policies – for example, in the areas of prevention and early detection. These differences are particularly pronounced for breast cancer. Additionally, many studies show that certain jobs bear a higher risk of cancer. The financial bottlenecks are considerable. At the level of the cantons, few resources are available for new activities.
Aims and objectives	Reduce the incidence of cancer. Reduce the mortality due to cancer. Improve the quality of life for cancer patients and their relatives
Governance, arrangement	
Macro-organization structures	
Governance	The federal government and the cantons have particular responsible as legally to develop national/regional cancer policy.
Accountability for delivering plan	
Registry and surveillance	Improve the cantonal register of cancer. Create a national cancer information system. Improve epidemiological monitoring of cancer.
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	The financial bottlenecks are considerable. Cost savings in current expenditure have an important role.
Allocation of the fund	
New technology	
Pharmaceutical	
Human resources	Secure the funding of palliative care.
Infrastructure	
Population based prevention and promotion	Allocate 18 million Swiss Francs for tobacco control
Registry and surveillance	1.4 million Swiss Francs for setting up a national centre for cancer epidemiology
Research	Allocate 50 million Swiss Francs for cancer research
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Promote smoke-free environment for non-smokers everywhere and at any time
Tobacco - smoke cessation	Motivate smokers to quit smoking
Tobacco - education	A nationwide ban on tobacco advertising, logos, and brand names
Tobacco - taxation	
Alcohol	Reduce the number of people with high-risk alcohol consumption
Unhealthy diet - fruit and vegetable intake	Promote eating fruit and vegetables
Unhealthy diet - education and promotion	Increase range and availability of healthy foods and meals
Physical activity	Promote everyday exercise for adult and children
Exposure to sunlight	Campaigns about risk of skin cancer. Protection against sunlight in schools
Occupation and environment	Ensure that fewer people develop job-related cancers

Switzerland *continued*

Items	Summaries from NCCP
Screening	50– years
Breast cancer - age	–
Breast cancer - frequency	25–60 years
Cervical cancer - age	–
Cervical cancer - frequency	(under review)
Colon cancer - age	–
Colon cancer - frequency	melanoma
Others	
Other education	
Other Promotion	Support the efforts of people who increasingly want to live healthily, existing structures and services need to be strengthened and networked. Support the individual, lifestyle advice from general practitioners, staff of cantonal leagues, health experts, and other partners needs to be formalised.
Structure	
Proposed organisational changes of service delivery	
Multi-disciplinary teams	Enable patients to be the main agents in their integrated treatment.
Development of networks	Ensure better coordination and consistency of treatment thanks to regional cancer networks
Care	
Availability of diagnostic and general treatment	Promote increase in knowledge of early detection of the most common types of cancer
Availability of palliative and rehabilitation care	Improve psychosocial care and palliative treatment
Availability of innovative care (technologies and drugs)	Ensure radiotherapy equipment are up to date and increase their capacity
Evidence-based guidelines	
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	
Systems for quality assurance and control	
general care	Establish national quality standards for treatment of cancer
Palliative care	
HR	
Education and continuous training to health care providers	
general care	Specialised medical and nursing societies are responsible for further and continuous professional education of their members.
Palliative care	Train doctors and carers in palliative care
Supporting patients and improving patient knowledge on cancer	Give patients the opportunity to participate substantially in decisions on their cancer treatment
Cancer research	Strengthen clinical research and public health research and support talented young researchers. Optimise coordination and networking for cancer research.
Specific target (Indicators of success, deadline)	
How the implementation / achievement of the plan evaluated	

Wales

Items	Summaries from NCCP
Key challenges identified in the plan	
Aims and objectives	Reduce cancer European Age Standardised Rate mortality in those aged below 75 years by 20 per cent by 2012. Improve cancer mortality in all groups and at the same time aim for a more rapid improvement in the most deprived groups. By 2015, through the efforts of the Assembly Government, the NHS, local authorities, their partners, the community and individuals, Wales will have minimised avoidable death, pain, delays, helplessness and waste.
Governance, arrangement	
Macro-organization structures	
Governance	Progress on the targets for strategic framework will be monitored and performance managed by the Assembly Government's Department of Health and Social services' Regional Offices.
Accountability for delivering plan	
Registry and surveillance	
Financing	
Current funding sources for cancer care as indicated in the plan	
Propose funding to implement in the plan including additional funding	
Allocation of the fund	
New technology	Funding for a new state-of-the-art PET scanning facility
Pharmaceutical	
Human resources	
Infrastructure	
Population based prevention and promotion	
Registry and surveillance	
Research	
Cost sharing	
Service delivery	
Public health interventions (prevention, screening, education, promotion)	
Prevention	
Tobacco - smoking free	Promote smoke-free environments eliminating smoking in public places
Tobacco - smoke cessation	Expand smoking cessation services.
Tobacco - education	Raise public awareness of the health risks of smoking
Tobacco - taxation	
Alcohol	Promote sensible drinking
Unhealthy diet - fruit and vegetable intake	
Unhealthy diet - education and promotion	Encourage healthy eating
Physical activity	Encourage physical activity
Exposure to sunlight	Encourage sun protection behaviours
Occupation and environment	Develop workplace health initiatives
Screening	
Breast cancer - age	70 years
Breast cancer - frequency	–
Cervical cancer - age	20–64 years
Cervical cancer - frequency	every three years

Wales *continued*

Items	Summaries from NCCP
Colon cancer - age	–
Colon cancer - frequency	–
Others	bowel cancer
Other education	
Other Promotion	
Structure	
Proposed organisational changes of service delivery	
Multi-disciplinary teams	Ensuring referral from GPs to the relevant cancer multi-disciplinary team
Development of networks	Implement regional Cancer Networks and other regional commissioning arrangements
Care	
Availability of diagnostic and general treatment	Enhance role of primary care for cancer care for improving patients access
Availability of palliative and rehabilitation care	Implement Regional Cancer Networks for improving planning and commissioning agreements for palliative care
Availability of innovative care (technologies and drugs)	Update and modernize diagnostic and radiotherapy equipment
Evidence-based guidelines	Implement NICE referral guidelines for primary care
Supportive care provision (non-professional)	
Quality	
Accreditation of providers	
Systems for quality assurance and control	
general care	Quality improvement of cancer care. Ensuring quality of care with the National Cancer Standards.
Palliative care	Ensure specialist palliative care to be compliance with the National Cancer Standards
HR	
Education and continuous training to health care providers	
general care	Provide more focused and structured approach for the workforce recruitment, retention and education and training.
Palliative care	Develop a workforce strategy for cancer to support the implementation of policy aims for cancer as they relate to all staffing groups.
Supporting patients and improving patient knowledge on cancer	Public awareness of early symptoms of cancers by 2008.
Cancer research	Collect and store cancer tumour, tissue and blood samples by the Wales Cancer Bank
Specific target (Indicators of success, deadline)	More prevention By March 2008: • every smoker who wants to quit smoking has access to an NHS smoking cessation service within one month of referral • all local health boards (LHBs) and NHS Trusts have achieved the gold or platinum level of the Corporate Health Standard, the national quality mark for the development of workplace health initiatives that seek to reduce sickness absence levels and improve recruitment and retention of staff • all LHBs and NHS Trusts have in place an approved health promotion strategy covering services and staff • three quarters of state schools participate in the Welsh Network of Healthy School Schemes and all by March 2010 • a range of action to encourage healthy eating and physical activity has been developed and is being maintained through the Nutrition Strategy for Wales, the Food and Fitness Action Plan for Children and Young People, and the work of the Welsh Assembly Government Sport and Physical Activity Working Group. • further steps have been taken towards eliminating smoking in public places, including issuing guidance to NHS bodies on smoke free NHS premises. • all LHBs, NHS Trusts and the National Public Health Service have taken further steps to target cancer risk factor activities within the most deprived communities

Items	Summaries from NCCP
	Early detection By March 2008: • the Chief Medical officer's website has a section on cancer awareness with links to relevant websites • a programme of action raising public awareness of the symptoms of skin cancer is being further developed • the national screening programmes for breast and cervical cancer continue to improve their detection rates • a national screening programme for bowel cancer as part of a National Bowel Cancer Framework is being planned and put in place Improved access By March 2008: • primary care is routinely implementing NICE referral guidelines • routinely, patients referred as urgent with suspected cancer, if diagnosed, start definitive treatment within two months; other patients not referred in this way but consequently diagnosed with cancer start definitive treatment within one month of diagnosis • patients have access to non-emergency patient transport to hospital for treatment • Regional Cancer Networks and other regional commissioning arrangements, are implementing a commissioning strategy, informed by CSCG planning advice, for radiotherapy to ensure Joint Council for Clinical Oncology recommended waiting times are met routinely from March 2009. • diagnostic and radiotherapy equipment is being updated and modernised • Regional Cancer Networks are routinely planning for the introduction of new cancer drugs and are monitoring their implementation in line with national guidance Better services By March 2008: • cancer services, including specialist palliative care, are undergoing the necessary reconfiguration and other changes required to ensure compliance with the National Cancer Standards by March 2009 • the new commissioning process is being used to drive the implementation of the regional Cancer Network action plans • all cancer teams are using CaNISC, are participating routinely in national clinical audits, and are benchmarking with teams in the United Kingdom and Europe where possible • a national Bowel Cancer Framework setting out a holistic approach to this disease has been published and is being taken forward • a service improvement and modernisation programme to support cancer services is underway • National Cancer Standards for sarcomas, brain cancers and children's cancers have been developed • 2 PET scanners, one for clinical use and one for research, are being procured for Wales • regional Cancer Networks are implementing improved planning and commissioning agreements for palliative care and services for enduring cancer related health needs with each of the NHS and voluntary sector providers in their area which are based on patient need • the All Wales Care Pathway for the Last Days of Life is routinely being delivered by all providers
How the implementation / achievement of the plan evaluated	Progress on the targets for strategic framework will be monitored and performance managed by the Assembly Government's Department of Health and Social services' Regional Offices.