Cancer prevention and control

Report by the Secretariat

1. Cancer is one of the most common causes of morbidity and mortality today, with more than 10 million new cases and more than 6 million deaths each year worldwide. More than 20 million persons around the world live with a diagnosis of cancer, and more than half all cancer cases occur in the developing countries. Cancer is responsible for about 20% of all deaths in industrialized countries and 10% in developing countries. It is projected that by 2020 there will be every year 15 million new cancer cases and 10 million cancer deaths. Much of this increase in absolute numbers derives from the ageing of populations worldwide.

2. Although the existing body of knowledge about cancer prevention, treatment and palliative care is extensive, more still needs to be known in many areas, notably in etiology and prevention research. There is now sufficient understanding of the causes to prevent at least one third of all cancers worldwide. Information is also available that would permit the early detection and effective treatment of a further one third of cases. Effective strategies exist for the relief of pain and the provision of palliative care to all cancer patients in need and of support to their families, even in low-resource settings.

3. Nonetheless, this knowledge is not always put into practice. Efforts to prevent and control cancer are hampered by the low priority frequently given to the disease by governments and health ministries, excessive reliance and expenditure on treatment, and a considerable imbalance between resources allocated for basic cancer research and those devoted to its prevention and control. For example, primary prevention, early detection and palliative care are often neglected in favour of treatment-oriented approaches, even in cases where these approaches are not cost-effective and cause unnecessary human suffering. Another example is the failure to take into consideration the social inequalities related to cancer prevention and control. Cancer incidence and survival are clearly linked to socioeconomic factors. Low-income and disadvantaged groups are generally more exposed to avoidable risk factors such as environmental carcinogens, alcohol, infectious agents, and tobacco use. These groups have less access to the health services and health education that would empower them to make decisions to protect and improve their own health. In addition, changing lifestyles expose people to risk factors that were once primarily obtained only in developed countries (such as sedentariness, diets high in animal fat and tobacco use).

4. The overall goal of cancer prevention and control is to reduce the incidence and mortality of cancer and to improve the quality of life of cancer patients and their families. A well conceived national cancer control programme is the most effective instrument to bridge the gap between knowledge and practice and achieve this goal. Integrated into existing health systems and related services, these programmes ensure systematic and equitable implementation of control strategies.
across the continuum of prevention, early detection, treatment, and palliative care, as set out in WHO’s guidelines for national cancer control programmes. A national cancer control programme can help policy-makers and programme managers make the most efficient use of available resources to benefit the whole population by taking a balanced approach to evidence-based interventions.

5. Prevention frequently offers the most cost-effective long-term strategy for cancer control. Preventive measures are doubly beneficial as they can also contribute to preventing other chronic diseases that share the same risk factors. It is estimated that around 43% of cancer deaths are due to tobacco use, unhealthy diets, alcohol consumption, inactive lifestyles and infection. Of these, tobacco use is the world’s most avoidable cause of cancer. In addition to lung cancer, tobacco consumption causes cancer of the oral cavity, pharynx, larynx, oesophagus, stomach, pancreas, liver, kidney, ureter, urinary bladder, uterine cervix and bone marrow (myeloid leukaemia). Exposure to environmental tobacco smoke (passive smoking) increases lung cancer risk. Tobacco use and alcohol consumption act synergistically to cause cancer of the oral cavity, pharynx, larynx and oesophagus. Furthermore, implementation of effective, integrated and multisectoral preventive strategies targeting multiple risk factors for cancer will reduce in the long term the incidence of cancer in sites such as stomach, liver, breast, uterine cervix, colon and rectum.

6. Infectious agents are responsible for almost 25% of cancer deaths in the developing world and 6% in industrialized countries. In low-resource settings with a high prevalence of cancers induced by biological agents, special measures are needed to combat these infections. For example, in areas endemic for liver cancer, hepatitis B virus immunization, integrated with other vaccination programmes, is the principal preventive measure. Vaccines are being developed and tested in human beings that could prove to be effective in preventing cervical cancer in the near future. Prevention of HIV infection will also reduce the incidence of HIV/AIDS-related cancers such as Kaposi sarcoma and lymphoma. Specific preventive and protective measures to control or avoid carcinogens or risks in the environment (including excessive exposure to sun) and the workplace will reduce significantly the incidence of such cancers as lung, bladder and skin.

7. Early detection, which comprises screening of asymptomatic populations and awareness of early signs and symptoms, increases the probability of cure. However, it requires the facilities to confirm diagnosis and provide treatment, and availability of resources to serve the population in need. The prevalence of the cancer should also justify the effort and expense. Awareness of early signs and symptoms is particularly relevant for cancers of the breast, cervix, mouth, larynx, endometrium, colon and rectum, stomach and skin. On the basis of existing evidence, population screening can currently be advocated only for cancers of the breast, cervix and colon and rectum, in countries where resources are available for wide coverage of the population, appropriate treatment is in place and quality-control standards are implemented. Nonetheless, studies are under way to evaluate low-cost approaches to screening that can be implemented and sustained in low-resource settings. For example, visual inspection after application of acetic acid may prove to be an effective screening method for cervical cancer in the near future. More studies are needed to evaluate low-cost alternatives to mammography screening, such as clinical breast examination.

8. Treatment aims to cure disease, prolong life, and improve the quality of life. The most effective and efficient treatment is linked to early detection programmes and follows evidence-based standards of care. Treatment guidelines and praxis guides improve treatment outcome by setting standards for

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patient management. The formulation of guidelines and their adaptation to various resource settings help to assure quality including equitable and sustainable access to treatment resources. Implementation of these guidelines can prevent the misuse of resources by ensuring that treatment is provided only to those patients whose cancers are at a stage where they would benefit from treatment. Patients can benefit either by cure or by prolonged life, in cases of cancers that are highly responsive to treatment.

9. Most cancer patients require palliative care. Palliative care involves not only pain relief, but also spiritual and psychosocial support to patients and their families from diagnosis, throughout the course of the disease, to the end of life and bereavement. It improves the quality of life of patients and their families, regardless of the possibilities of cure. These services can be provided simply and inexpensively. For example, morphine for oral administration in the case of moderate to severe pain can be provided at relatively low cost. Nonetheless, access to pain relief and palliative care services is often limited, even in high-resources settings, because of lack of political will, insufficient information and education of the general public, health care providers and patients, and excessive regulation of opioids.

10. Surveillance and research are crucial for both planning effective and efficient cancer control programmes and monitoring and evaluating their performance. A comprehensive surveillance system provides data on the magnitude of the cancer burden and trends in risk factors, and on the effect of prevention, early detection, treatment and palliative care. Cancer registries are part of the surveillance system. Population-based registries provide information on incidence cases and incidence trends; whereas hospital-based registries provide information regarding diagnosis, stage distribution, treatment methods and survival. Research contributes to determining causes of cancer and identifying and evaluating strategies for prevention, treatment and control. Hence research planning and priority setting are important elements of a cancer control programme.

11. Effective partnerships at national, regional and global levels are essential for sustainable prevention and control of cancer. Since the discontinuation of the Global Alliance on Cancer Control, referred to in the preamble to resolution EB114.R2, WHO has strengthened its links with other institutions active in the field of cancer control by bringing together partners in a network whose goals are identification and increase in opportunities for collaboration in global cancer control, advocacy for such control, provision of a forum for communication and exchange of information and facilitation of implementation of cancer control programmes at country level. The network comprises international organizations, agencies of the United Nations system, government bodies, nongovernmental organizations, and private-sector entities, covering such fields of expertise as medicine, nursing, research, public health and communications.

12. IARC conducts focused research on cancer etiology and prevention providing evidence on global cancer prevalence and incidence, the causes of cancer and mechanisms of carcinogenesis, and the most effective strategies for cancer prevention and early detection. WHO promotes policy development and programme implementation. The recently published WHO/IARC report contains the latest epidemiological data and projections about cancer, current knowledge about the causes of cancer, and policy recommendations for cancer control programmes.¹ This report, together with other IARC and WHO monographs, technical reports and scientific publications, provides a sound basis on which to develop effective cancer control strategies.

13. To date, no Health Assembly resolution has dealt specifically with the subject of comprehensive cancer control and prevention. However, previous resolutions that relate to prevention and control of chronic diseases provide the general framework for addressing cancer prevention and control. Resolution WHA51.18 noted that noncommunicable diseases, including cancer, represented a significant and growing burden on public health services; resolution WHA53.17 urged the establishment of comprehensive programmes for the prevention and control of major noncommunicable diseases; resolution WHA55.23 urged the development of a global strategy on diet, physical activity and health; and resolution WHA56.1 adopted the WHO Framework Convention on Tobacco Control.

14. The Executive Board at its 114th session, in May 2004, discussed cancer control and adopted resolution EB114.R2 on cancer prevention and control.¹

ACTION BY THE HEALTH ASSEMBLY

15. The Health Assembly is invited to consider the draft resolution contained in resolution EB114.R2.

¹ See document EB114/2004/REC/1.