Cancer Awareness, Prevention and Control: Strategies for South Asia
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### Abbreviations

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- Tata Memorial Centre
- Indian Council of Medical Research
- Indian Cancer Society
- International Union Against Cancer
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Foreword

International Union Against Cancer

The title of this handbook encompasses three concepts that are essential in our fight against cancer: cancer awareness, cancer control and prevention. They are more important today, when everybody is forecasting for the near future a possible cancer disaster, mainly in countries with limited resources. We expect 17 million new cases of cancer worldwide by 2020, with three fourths of the cancer related deaths occuring in the developing part of the world. Of course we need everywhere better treatment facilities, however, we all know that this will not be sufficient to tackle the problem, particularly because treatments are becoming more expensive and sophisticated. Therefore, we have to consider the looming disaster and what we can do to avoid it from another point of view. This is the very reason why the Executive Committee of the UICC has declared that the main goal of our organisation is to make sure that within the next 10-15 years, in every country of this world, there will be a cancer control plan. Within these plans, prevention will play a pivotal role, and this is needed most of all in countries where facilities and structures for early detection and treatment are suboptimal.

To succeed we also need increased awareness among the public. I’m convinced that it has just been this kind of awareness among women, which explains to a large extent the decrease in mortality, which we have witnessed in developed countries as regards breast cancer in the last 10 years. This handbook is therefore very timely and I hope that everyone will appreciate it. I’m also proud that it appears when the UICC is starting at the World Cancer Conference in Washington a new phase in its history, reshaping its governance and relaunching its plans for an intensified fight against cancer on a global scale.

Franco Cavalli
President 2006-2008
Foreword

Tata Memorial Centre

In the next 50 years, the world’s population is projected to increase to 9.3 billion from the current 6.1 billion, with 88% of the population growth in the less developed countries. Given this population scenario and slower economic growth, there would be serious health consequences in the developing world, still dominated by infectious diseases and compounded by poor living conditions and malnutrition. Nevertheless, cancer has rapidly gained recognition as a serious public health problem with almost half of the cancer cases in the year 2000 being diagnosed in the developing world. In about 20 years the contribution of the developing world to the global burden of new cases would rise to 70%.

Cancer is currently placed between 9th to 6th most common causes of death in South Asia. However, given the current trends, it would not be too long before cancer becomes the 2nd most common cause of death in this region too.

South Asia has the maximum burden of cancers of the head and neck due to the tobacco chewing habit of the native population. Cervix cancer is the commonest cancer among women. Lung cancer in men and breast cancer in women are showing very significant rising trends in the urban setting. Oesophageal and other upper gastrointestinal tract cancers are also on the increase.

Most countries in South Asia have already initiated some cancer control efforts at local and national levels. Intensive research for the development of low cost technological tools for the early detection of oral, cervix and breast cancers has also been conducted in this region over the last decade. It is now very opportune for all the countries in South Asia to bind this information into culturally appropriate and logistically feasible national cancer control programmes.

This UICC Handbook titled “Cancer Awareness, Prevention and Control: Strategies for South Asia” has been designed to provide the necessary evidence and impetus for the development of cancer control programmes of relevance to South Asia. I am sure that country health planners and managers at all levels will find this book very useful as a ready reference in all aspects of their programme activities.

Ketayun Dinshaw
Director
Foreword

Indian Council of Medical Research

With the control of communicable diseases, non-communicable diseases are emerging as a major public health problem. Cancer is on the rise in developing countries including South Asia and is one of the three leading causes of death.

Control of cancer in the setting of a developing country is indeed challenging. It is more so, if this has to be based on research evidence. In order to accomplish this, the Indian Council of Medical Research has built a database on cancer through the National Cancer Registry Programme with a network of population and hospital based cancer registries. Over the years, the population based cancer registries (PBCRs) have identified differing cancer patterns and incidence rates. For example, cancer of the stomach has been noted as a leading site of cancer in males in the Southern registries of Chennai and Bangalore. That is not seen among the leading sites of cancer in the Delhi PBCR. Likewise, cancer of the gall bladder in women is very high in Delhi, but is of little or no importance in the Southern registries. The hospital based cancer registries have shown that a very high percentage of patients first attend for treatment when the disease is clinically advanced leading to poor survival.

More recently, under the auspices of the World Health Organisation a project on ‘Development of an Atlas of Cancer in India’ was completed using modern advances in Electronic Information Technology. This study covered areas of the country hitherto not covered by the PBCRs. The results of this project confirmed some suspected features of the geography of cancer in India as well as brought to light some new or little known facts. The patterns of cancers of anatomical sites associated with the use of tobacco showed variations according to the type of tobacco habit pursued by the population. An overall high incidence of cancer was seen in the North Eastern State of Mizoram. Other hot spots include the occurrence of gall bladder cancer along the Gangetic belt, thyroid cancer in the South West coast, coincidence of high cervical and penile cancer in some districts in the Southern State of Tamil Nadu and high stomach cancer incidence in the North Eastern States.

The above studies emphasise the need for evolving evidence based and area specific cancer control strategies. It is hoped that this book under the auspices of the International Union Against Cancer will greatly help in such an exercise for the countries in the South Asia region.

Nirmal Kumar Ganguly
Director General
Foreword

Indian Cancer Society

Ten million new cancer cases are diagnosed each year and six million people die from cancer. Forty-three percent of cancer deaths are due to tobacco, diet and infection. More than fifty percent of the new cases are in the developing world. It is estimated that by the year 2020, fifteen million new cases will be diagnosed per year with sixty percent of the cancer burden from the developing world.

The countries with limited resources face an uphill task of a rising burden of cancer cases in addition to the existing burden of infectious diseases and this problem is compounded further because of low educational and economic status and unequal distribution of available resources. The initial step in the fight against cancer is to build capacity; that is, human resources and facilities and to detect a larger number of cancer patients at an early stage through prevention and early detection.

The countries with limited resources do not have adequate resources to carry out screening programmes; however, it is possible to identify a subset of the population that is at high risk through a campaign of cancer awareness and an evidence based strategy of prevention and early detection.

This book is directed towards government agencies as well as non-government organizations, as it will help them to plan appropriate strategies.

This handbook is a classic example of the International Union Against Cancer bringing the International Community together to form a global alliance for cancer control.

Arun Kurkure
Honorary Secretary and Managing Trustee
Preface

Home to a quarter of the world’s population, South Asia (Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) presents a complex sociodemographic scenario that is medieval in places, transitional in others and most modern in some. The health problems and the available health care infrastructure in the region is a direct reflection of this situation. While the urban conurbations boast of the most modern and sophisticated levels of health care, rural areas lack even basic facilities. While communicable diseases control programmes are still the main thrust of the public health care systems in South Asia, most countries have taken the first steps towards initiating plans for noncommunicable diseases control programmes.

Cancer is currently placed 6th to 9th in the common causes of mortality in the region. Using available information it is estimated that the annual cancer incidence in the region that was 1.12 million in the year 2002 increased to 1.21 million in 2005. If the current sociodemographic trends continue (which in all probability is inevitable) then we can expect these numbers to increase exponentially in the not too distant future.

The most common cancers in South Asia are the cancers of the head and neck, which can be directly attributed to the widely prevalent tobacco chewing habit in the region. Cervix cancer is the commonest cancer among women while the incidence of breast cancer is rising rapidly, particularly in the urban areas. Lung, esophageal and other upper gastrointestinal tract cancers are also showing significantly increasing trends, particularly in men.

Most countries in the region currently have some form of national cancer control programmes. Community based studies for the development of technically, financially and culturally appropriate screening tests for the early detection of oral, cervix and breast cancers have been conducted in this region over the last decade. Of particular interest have been the cervix cancer screening tests:

- Visual inspection after application of acetic acid (VIA)
- Visual inspection after application of Lugol’s Iodine (VILI)

These tests have been shown to have a sensitivity as good as (and sometimes better) than conventional cytology. Sequential combination of these tests with cytology or HPV DNA tests are seen to provide acceptable levels of sensitivity and specificity at a fraction of the cost of standalone cytology or HPV tests.

This book collates and examines available information from the countries in South Asia listed above (except Maldives) on the following subjects:

- Cancer Burden
- Social issues in cancer
- Evaluation of cancer prevention interventions
- Causative factors including tobacco, infections, occupations and diet
- Screening interventions
- Existing National Cancer Control Programmes
- Model for a District Cancer Control Programme

This book is the labour of a very distinguished panel of cancer control experts from South Asia. The book was first discussed and conceived at a UICC meeting held at the Tata Memorial Hospital in Mumbai, India, in September 2004. The meeting included experts from South Asia, South East Asia and the Asia Pacific regions. The Asian continent being very large and diverse in several ways including health care, it was decided that separate books are required for the sub-regions. This book as mentioned earlier concentrates on South Asia. This book is aimed at country health planners and cancer control programme managers from the government and non-governmental sectors. The authors bring their rich experience and practical knowledge of handling cancer control interventions in South Asia to this book.

The UICC and authors of this book would be very happy to receive comments (particularly the critiques) and suggestions on the usefulness of this book at preventionhandbook@uicc.org