

# **THE SIGNIFICANCE OF CANCER IN TURKEY AND IN THE WORLD, THE DISEASE BURDEN and CANCER CONTROL POLICIES**

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Although the proliferative, invasive and aggressive diseases which occur through various molecular mechanisms in hundreds of different tissues are altogether called cancer, various clinical courses and differences in response to treatment can easily be observed in cancers.

Both in the world and in Turkey, cancer is the second cause of death with a rate of 22%, after cardiovascular diseases. In fact, when the data of the recent years are analyzed, it would not be wrong at all to perceive cancer as a public health problem. Especially when we take into consideration the cancers that can be prevented, where death can be eliminated by screening and early diagnosis contribute much to the quality of life, to what extent primary and secondary prevention is essential shall be understood.

Lung cancer, which is the most significant cancer preventable through primary protection, ranks first both in Turkey and in the world. With a successful fight against tobacco, elimination of cancers of the lung, larynx, urinary bladder, cervix, pharynx and oral cavity will be possible to a great extent. Only tobacco control means prevention of approximately 40,000 lung cancers in Turkey.

From another perspective, one in every three cancers is related to malnutrition and one is related to tobacco use. This means that, with creation of a conscious society, two out of three cancer patients may be saved from being cancer.

Whereas 6 million people all over the world got cancer every year in the early 2000s, this figure will approximate to 12 millions within the next twenty years. In 2005, 12 millions of people got cancer, 7 millions died due to cancer, and 25 million people are living with cancer.

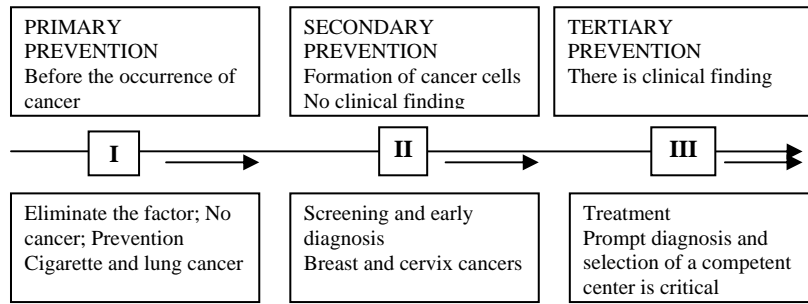
In 2030, 24 millions of people will get cancer. 17 million people will lose their lives in the same year. And 75 million people will be living with cancer in 2030.

The most important reason of such increase is the increase in the risks of cancer.

- **Cigarette**
  - Number of addicts
  - 2010 1.4 billions
  - 2020 1.6 billions
  - 2030 1.8 billions
- **Ageing**
  - Population older than age 60
  - 2010 0.8 billions (11.2 %)
  - 2020 1 billion (13.6 %)
  - 2030 1.4 billions (16.7 %)
- **Obesity**
  - Rate of the obese population
  - 2010 15-28 %
  - 2020 19-35 %
  - 2030 23-43 %

On the average, cancer frequency will almost double until 2030 in all over the world. The fact that 75 % of this increase will occur in undeveloped and developing countries, which also include Turkey, and that these countries which will have to bear such burden account for only 5 % of the budget spent for cancer worldwide requires concentration on cancer prevention and early diagnosis in cancer control programs.

At this point, primary, secondary and tertiary prevention of cancer come into the agenda. In primary prevention, there is no indication or any cell change yet. Occurrence of cancer can be prevented by measures taken in this period. For example, if cigarette is eliminated, lung cancer does not occur. In secondary prevention, there is early diagnosis, no clinical finding but cancer has begun at the cellular level. Breast cancer screening programs can be given as an example to secondary prevention. As to tertiary prevention, there are cancer findings yet mortality can be decreased by correct treatment. Among these three stages, primary prevention is important since it both can protect extensive masses and is cheap. Again, secondary prevention is cost-effective. Tertiary prevention, that is mere treatment, is an approach which brings serious economic burden which can be afforded by powerful countries. In many types of cancer, especially many of the childhood cancers, for example in leukemia, as only tertiary prevention is at issue, this approach is essential. However, in lung cancer, the control program to be concentrated on should be primary prevention.



In cancer control programs of the WHO, there are different scenarios suggested for each country according to its budgetary structure and economic situation. During the establishment of such a program in Turkey, lung cancer, which we most frequently encounter and which is a preventable cancer, and cancers of the digestive system gain prominence. Thus, if the fight against cigarette can be successfully maintained during the forthcoming years, the current annual increase of 3-5 % in lung cancer can be controlled. Again, in addition to the prevention of cigarette addiction, which plays an effective role in a significant portion of the cancers of the digestive system, promotion of healthy nutrition is critical.

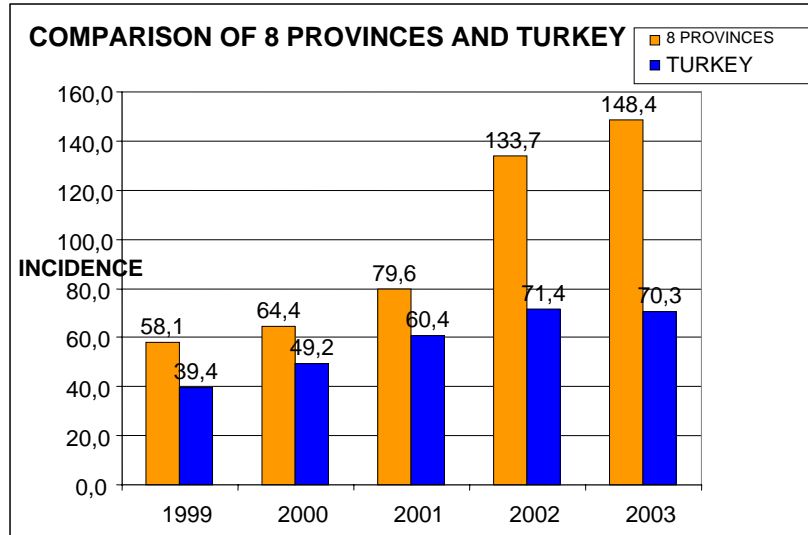
In the cancer control program of Turkey, reduction of use of cigarette and other tobacco products and promotion of healthy nutrition by means of training are aimed at. In addition to the prevention of cancer as primary prevention, early diagnosis and reduction of cancer mortality are also among our major targets. Especially, screening of breast and cervix cancer has been started within the framework of a national program, and the efforts to spread it to 81 provinces are continuing. Beside these screening programs, screening programs for stomach cancer and colon cancer, which are also significant in Turkey, have also been started in a limited number of areas. Today, breast and cervical cancers are already included in screening programs in Europe and in many countries of the world. In the forthcoming years, the screening of colorectal cancers will also be addressed in the European Union countries. Special cancers in certain countries, for example, cancers such as stomach cancer in Japan are evaluated within the screening programs.

In control of the cancer disease, the most important issue is accurate cancer registry in a country. Unless accurate statistical data are attained, it is impossible to know which cancer has what significance and to make strategic plans, above all in relation to realistic human resources.

In Turkey, the main target in the cancer control plan, which has now become a state policy, is the accurate and regular registry of cancer. Furthermore, primary prevention and secondary prevention have gained

weight and establishment of a cancer screening and training center in each province has been targeted. With this regard, projects supported by the European Union have gained pace.

The previous method of registering each cancer in each place, which proved ineffective, has been abandoned and registry centers have been established on the basis of their regional representation characteristics and a serious recovery in cancer incidences has been achieved in recent years. We can see this recovery in the following comparative table:



Serious measures are taken also for the environmental cancers, wherein arsenic, asbestos and erionite are the prominent factors, which have great significance for Turkey. In particular, due our geological structure, natural asbestos occurrence is encountered in more than 80 settlements in our 61 provinces and in some of these settlements it poses considerable threat to human life. Specifically, an extensive program has been initiated in order to prevent erosion and unconscious use of land.