



Valery S. BARSEGYAN
Armen K. NERSESYAN

Cancer incidence in Armenia (1970 - 1998)

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CANCER RESEARCH CENTER, YEREVAN, ARMENIA

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The data presented in this work are based on the official data of Cancer Registries and Department of Information of the Ministry of Health, Armenia.

Cancer is the second leading cause of death after cardiovascular diseases and stroke in Armenia (16.5% of all deaths in 1998).

In 1998, 5145 persons (2705 males and 2440 females) with diagnosed cancer were registered and the crude incidence rate was 135.6. Sex ratio of incidence was 1:0.9 and it was almost constant during 28 years (1970-1998).

An increase of the crude incidence rate of cancer (both sexes) was 6.1% in 1975 compared to incidence in 1970, 7.8% (1975-1980), 12.1% (1980-1885) and 3.2% (1985-1990). In the following 5 years there was a decrease in cancer incidence - 13.7% (1990-1995) and then again an increase 8.3% (1995-1998).

It is known that following the increase up, until the late 1980s, statistically significant declines in cancer incidence and mortality have been observed in North America and in Western Europe since 1992 (due to reduced exposure to occupational carcinogens, prevention and early diagnosis, and improved treatment) (1). Decrease in cancer incidence in Armenia has different reasons from western countries. UN experts working in Armenia consider that after the earthquake in 1988, collapse of the USSR and therefore extensive decrease in living standards, 700,000 (or more) Armenians immigrated (most-

ly illegal) into Russia, into the USA and France (data of 1996) (2). So there is a discrepancy between official and real data concerning the population of Armenia. Using the above mentioned data we can approximately calculate that cancer incidence (crude rate, both sexes) was 154.8 in 1996 and 166.3 in 1998 (official data 126.1 and 135.6, respectively). Our calculation has shown that instead of officially declared decrease in cancer incidence in 1995 compared to 1990 (-13.7%), there is an increase (+6.0%). In 1998 there was also an increase compared to 1995 (+8.1%). These data are more realistic than official data and therefore there is an increase of cancer incidence in Armenia every year.

Calculation of cancer incidence risk confirms our suggestion because it was 0.11% in 1970, increasing every five years up to 0.01% till 1990 (0.15%). Then, there was a decrease in 1995 - 0.13% and in 1998 - 0.12%. But using more realistic data we suggest that risk was 0.15% in 1995 and 0.17% in 1998. So, cancer incidence risk was 1.5 times greater in 1998 than in 1970.

The life time of being diagnosed with cancer of any organ for the population of Armenia was approximately 0.11% in 1970, 0.13% in 1980, 0.15% in 1990 and 0.17% in 1998. Thus, the risk of cancer incidence in Armenia was 1.5-fold, 1.3-fold and 1.1-fold more in 1998, than in 1970, 1980 and 1990, respectively.

During the period from 1970-1990, the most frequent cancer sites were lung, stomach, lymphatic/hemopoietic system, skin including melanomas and colon-rectum in males, and breast, stomach, lymphatic/hemopoietic system, cervix uteri, colon-rectum and skin including melanomas in females. In 90s the most frequent cancer sites were lung, stomach, lymphatic/hemopoietic system, colon-rectum, urinary bladder and prostate in males, and breast, cervix uteri, colon-rectum, stomach, lymphatic/hemo-

poietic system and lung in females.

We can conclude that cancer incidence in Armenia increases every year and the most frequent cancer sites, according to IARC data (3), are similar to other developing countries.

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Address correspondence to:

Dr Armen K. Nersesyan, Cancer Research Center, 76 Fanardjian Street, Yerevan 375052, Armenia

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