

Cancer Profile

1. General information about the country

Georgia is located at the crossroads of Western Asia and Eastern Europe; it is bounded to the west by the Black sea, to the north by Russia, to the south by Turkey and Armenia, and to the southeast by Azerbaijan. The capital of the country is Tbilisi. Georgia covers a territory of 69,700 square kilometres (26,911 square miles). The population size equals to 3,72 million (as of January 1, 2017).

	2011-2012	2013	2014	2015	2016
GDP per capita (USD)	3231-3523	3,600	3,676	3,767	3,865
Public expenditure on health, % of GDP	1.7%	2.0%	2.4%	2.9%	3.0%
Health expenditure:					
Public expenditure	18.4% - 20.6%	24.30%	28.2%	36.3%	37%
Private expenditure	79.1% - 77.1%	73.4%	69.9%	61.9%	62%
International aid	2.5% - 2.3%	2.3%	1.9%	1.8%	1%
Basic Health Indicators:					
<i>Birthrate</i>	12.7 per 1000	12.9 per 1000	16.3 per 1000	15.9 per 1000	15.2 per 1000
<i>Mortality</i>	11.0 per 1000	10.8 per 1000	13.2 per 1000	13.2 per 1000	13.7 per 1000
<i>Life Expectancy at birth</i>	74.7 years	75.2 years	72.9 years	72.9 years	72.7 years
<i>Maternal mortality rate (deaths per 100,000 live births)</i>	22.7	27.7	31.5	32.1	23.0
<i>Infant mortality rate (per 1000 live births)</i>	10.8	10.5	8.2	8.6	9.0
<i>Under-five mortality (per 1000 live births)</i>	12.4	12	9.3	10.2	10.7

Source: NCDC

1. Epidemiology of oncological diseases

Oncological diseases are one of the leading causes of morbidity and mortality worldwide. Cancer is the second leading cause of death after cardiovascular diseases. According to World Health Organization report 2014, 97% of mortality in Georgia is caused by noncommunicable diseases and trauma. Thereby, 14% of total deaths is related to the cancer.

For the purpose of collecting high quality data on the spread of malignant tumors, population-based cancer registry has been launched in Georgia since January 1, 2015, according to which the number of new cancer cases (including in situ tumors) in 2015-2017 ranged between 8700-11000, respectively. In 2017, overall 8731 new cases of cancer were reported, and the incidence rate was 234.8 per 100 000 population.

In Georgia, the incidence of almost all localization cancer among both men and women is less compared to the the European region and EU countries and is closer to the CIS average rate. 56-57% of new cancer cases were reported among women, 44-43% among men.

70% of new cases are registered in the group of working age population – 30-70 years, and about quarter of cases among individuals over 70 years of age. 1% of all cases occur among 0-15 and 15-20 year groups.

The most common cancers among women are the following 5 localizations of cancers: breast, thyroid gland, colorectum, uterus and cervix. The most frequent localization of cancer among men: lung, prostate, bladder, colorectum, stomach (according to last 2 years).

Early detection of malignant tumors, when survival indicators are higher, significantly increases the chances for successful treatment outcomes. In 2015-2017, the share of cancers, diagnosed at the I and II stages, constituted 39,5%, III-IV stage – 59.2%; and the stage was not identified in 11.3%.

3. Prevention, screening, diagnosis, treatment and palliative care

One of the main goals of the health care system of all countries is reducing the burden of cancer mortality. For this reason, great importance is given to preventive measures, early detection of diseases, proper diagnosis and treatment.

There are some manageable risk factors in oncological diseases: tobacco smoking (about 10% of mortality worldwide, 22% in Georgia), alcohol consumption, overweight, obesity and low physical activity (31% of Georgian population is tobacco smokers; 17.4% - has low physical activity).

In 2017, the Parliament of Georgia adopted a new law on tobacco control. Public awareness campaign/activities about basic manageable risk factors (tobacco, alcohol, low physical activity, excess weight, obesity) is implemented within the State Health Promotion Program.

25% of cancer cases in low and middle income countries are caused by viruses, such as hepatitis and human papilloma virus (HPV). Vaccination against hepatitis B in Georgia is included in the planned vaccination calendar. Vaccination against the human papilloma virus in Georgia has been started since December 1, 2017. Hepatitis C State Program is implemented since 2015. The patients enrolled in this program are diagnosed and treated with the latest generation medicines. The cure rate equals to 98%.

Nowadays, in Georgia the following screening programs are implemented for the specific group of population: breast cancer screening program for 40-70-year-old woman; Cervical cancer screening for 25-60-year-old woman; Prostate cancer screening for 50-70-year-old-men; Colorectal cancer screening in 50-70-year-old population.

All regions of Georgia are covered by medical institutions providing screening programs. In addition, the program provides mobile groups services in areas where service provider does not physically exist.

The Basic Package of the Universal Health Care Program launched in 2013 includes the treatment of oncologic patients, specifically chemotherapy, hormone therapy and radiotherapy and investigations and medications related to these procedures. The program covers all types of laboratory and instrumental investigations related to planned preoperative, perioperative and postoperative periods.

Within the bounds of the Tbilisi Municipality and Referral Program, since 2016, has been implemented partial or full coverage of the initial treatment with targeted medicine (Trastuzumab) of individuals with aggressive HER-2 receptor positive diagnosis. From 2018, co-financing treatment with other medicines (Trastuzumab, Pertuzumab, Lapatinib, Trastuzumab-Emtansine) of patients with HER2 positive metastatic breast cancer are planned.

The state program on "pediatric oncology/hematology services" provides remuneration of outpatient and inpatient treatment costs for oncological/hematological patients under the age of 18 without co-payment. Within the program the management of complications and outpatient type protection therapy will also be remunerated. Patients are treated according to German BFM guidelines.

Within the state program of referral services is considered financing citizens with various diagnosis, when another state program, or insurance can not cover their necessary medical services (e.g.: nuclear medicine services, Adjuvant therapy), or their treatment at that stage is impossible in Georgia and they need medical treatment abroad (e.g.: high dosage chemotherapy, bone marrow transplantation, etc.). In 2016-2017 approximately 8 960 (including partly funded by state – 850 cases) oncological patient left Georgia for receiving medical services.

Georgia has the National program for palliative care, it provides patients not only with special form of prescription, as well as, medical in-patient and outpatient services. In case of need, patients are provided with morphine (both injection and tablet form) and a special recipe for narcotic drugs. The right to subscribe to this narcotic drugs, except for specialists, have doctors of primary health care, including rural doctors. In addition, various services used in palliative care - primary health care service, surgical, radiation, chemotherapy, hormonotherapy and related researches and medications are covered by the universal health care program. These services are covered 100% for socially vulnerable population.

Despite the above, there are a number of challenges, such as low coverage of screening services, lack of information, geographical availability and fragmentation of services. A number of high-tech diagnostic and medical services are not implemented in Georgia yet (high dosage chemotherapy, bone marrow transplantation, etc.) and because of this patients have to travel abroad.

In 2016-2017, approximately 8 960 (including partially funding from the state - 850 cases) oncologic patient have left Georgia to receive medical services abroad. The state program of referral services is financed cases, which is not covered by any other state program Nuclear medicine Yin-services, adjuvant therapy) or private insurance or their treatment at this stage is impossible in Georgia and it is necessary to be treated abroad (for example, high chemotherapy, bone marrow transplantation and t D.).

4. Oncology service providers

Most of the medical institutions that provide oncological services in the country are private profit clinics. Medical institutions are equipped with appropriate medical-technical devices, including high-tech equipment for the treatment of oncological diseases.

Various types of treatment (urgent and planned operative treatment, radiation, hormone and chemotherapy) are realized in 243 medical institutions within the framework of the Universal Healthcare State Program. On a national scale, 12 medical institutions provide radiation therapy (including 10 in Tbilisi, 2 in regions), whereas, 65 medical institutions provide chemo- and hormone therapy (including, 33 in Tbilisi, 12 in regions).

Six radiotherapy departments are functioning in Tbilisi, Kutaisi and Batumi. There are three branches of brachytherapy in Tbilisi.

In Georgia, all types of nuclear medicine are available for cancer patients, including diagnostic procedures that have technetium 99m (Tc-99m), radioactive iodine therapy, and tomography of emission positron (PET). All nuclear services are gathered in Tbilisi.

Palliative outpatient services are provided in 6 cities and regions, and in-patient services are provided in Tbilisi, Batumi, Gori and Kutaisi.

Oncological diseases are diagnosed with cytological, morphological, Immunophermental or immunohistochemical and cytogenetic research. According to the data of Cancer Registry, 88% of the cases revealed in 2015 and 2016 were diagnosed with histomorphic or cytologically.

5. Human Resources

According to the National Certification Registry, the state certificate has 399 specialists in “oncology”, 24 specialists in “clinical oncology”, surgical oncologists – 260 (218 specialists with certificates in subspecialty, 42 with appropriate certificates), 53 specialists have certificate in subspecialty - "oncological gynecology" (Obstetrician Gynecologist), 72 specialists in “uro-oncology” (urologist).

The supply of radiation services in Georgia serves 21 radiation oncologists, 18 medical physicists and 40 radiation technologists while nuclear services provide 6 nuclear medicine doctors.

Distribution of the number of doctors in oncology: 181 clinical oncologists, 189 surgical oncologists, 70 gynecological oncoginologists and 15 urologic oncologists.

In addition, radiation oncologists are mainly assembled in Tbilisi (only two clinics provide these services in the regions). Nuclear medicine services are delivered only in Tbilisi, so all specialists are employed in the capital of Georgia.

Literature:

1. [National Center for Disease Control and Public Health. Health care. Statistical report, Georgia, 2016.](#)
2. [LEPL "Social Service Agency"](#)
3. [LEPL "State Regulation Agency for Medical Activities"](#)
4. [LEPL "National Statistics Office of Georgia"](#)
5. [World Health Organization](#)
6. [World Health Organization/European Bureau](#)