MINISTRY OF LABOUR, HEALTH
AND SOCIAL AFFAIRS OF GEORGIA

National Centre for Disease Control
and Public Health

HEALTH CARE

EUROPE

Georgia, 2010 Statistical Yearbook

MINISTRY OF LABOUR, HEALTH AND SOCIAL AFFAIRS OF GEORGIA

NATIONAL CENTRE FOR DISEASE CONTROL AND PUBLIC HEALTH

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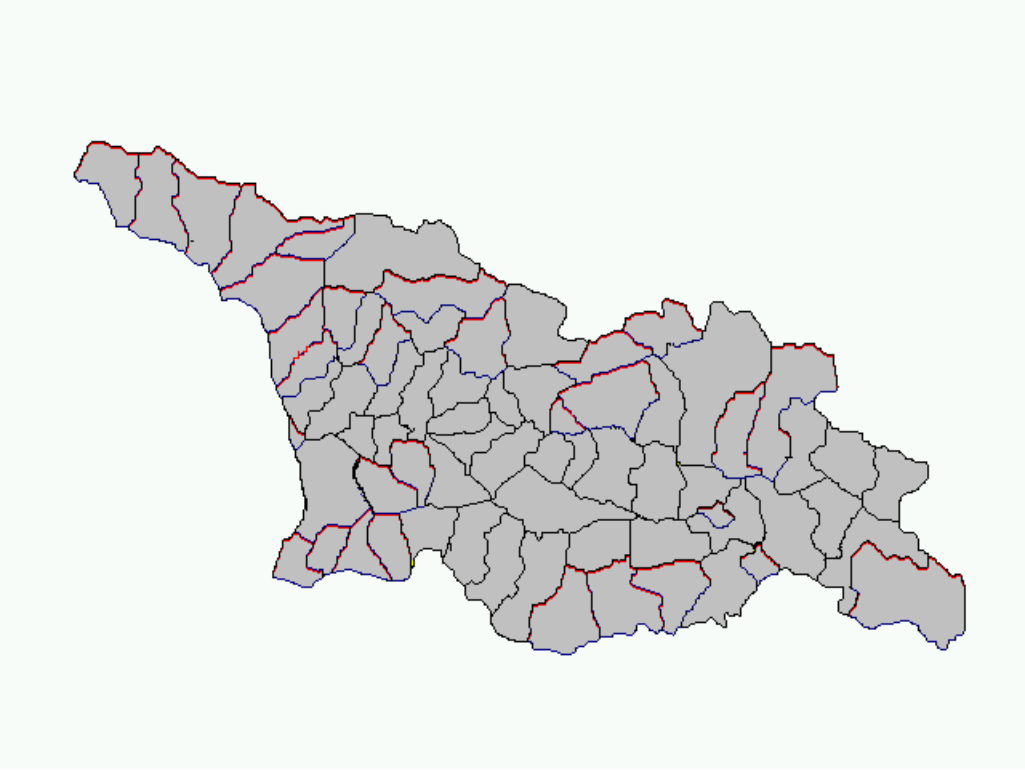
GEORGIA 2010

STATISTICAL YEARBOOK



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2011

Data collected from statistical reports of the medical institutions of the Ministry of Labour, Health and Social Affairs, the Ministry of Defense, the Ministry of Internal Affairs and other departments of Georgia have been used in this yearbook. The book also contains vital statistics received from the National Statistics Office of Georgia.

The yearbook is prepared by the Department of Medical Statistics of National Centre for Disease Control and Public Health named after L.Sakvarelidze of the Ministry of Labour, Health and Social Affairs of Georgia.

In any question applications should be made to the National Centre for Disease Control and Public Health named after L.Sakvarelidze at 9 Asatiani street, Tbilisi, Georgia

Phones: (995 32) 2 39 80 49 (ext. 217, 218)

E-mail: CMSI@CAUCASUS.NET

Web site: www.ncdc.ge

PREFACE

The yearbook “Health Care” is the annual edition of the Ministry of Labour, Health and Social Affairs containing the basic statistical indicators of the population health status and resources of the health care system. The yearbook has been published since 1996.

The yearbook is prepared by the National Centre for Disease Control and Public Health named after L.Sakvarelidze of the Ministry of Labour, Health and Social Affairs of Georgia on the basis of branch statistical reports.

2006-2010 data are presented according to the WHO International Statistical Classification of Diseases the Tenth Revision.

The methodology of the calculation, recommended by the WHO and the UNO, that provides comparability of indicators over countries, is applied to the calculation of the resulted indicators given in the yearbook. Definitions and formulas for the calculation of indicators can be found in the glossary of the yearbook.

This yearbook discusses indicators of public health, provides Millennium Development indicators for Georgia, describes maternal and child health status, and data on communicable and non-communicable diseases according to the classes of diseases, such as infectious and parasitic diseases, neoplasms, the circulatory system diseases, endocrine diseases, the respiratory system diseases, the genitourinary system diseases, mental and behavioral disorders, as well as basic demographic data, and etc.

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Chapter 1.

Health-related Millennium Development Goals

At the United Nations Millennium Summit in 2000, 193 world leaders signed the Millennium Declaration, a commitment to meet eight international development goals by 2015. The Declaration places emphasis on world peace, security and development and encompasses principles underlying environmental protection, human rights and effective governance. The Declaration spells out the Millennium Development Goals (MDGs) to guide a comprehensive and broad-based programme to overcome the root causes of poverty and substantially reduce it by 2015. Each of the eight goals has specific targets, whereas their monitoring is to be performed based on relevant indicators.

Millennium Development Goals in Georgia
World Health Statistics, 2011, WHO

Millenium Development Goals:

1. Eradicate extreme poverty and hunger;
2. Achieve universal primary education;
3. Promote gender equality and empower women;
4. Reduce child mortality;
5. Improve maternal health;
6. Combat HIV/AIDS, malaria, and other diseases;
7. Ensure environmental sustainability;
8. Develop a global partnership for development.

Georgia, as a country, which have signed the Millennium Declaration, adopts the obligation to ensure implementation of Millennium Development Goals, reflects them in national development strategies and reports periodically on the status of implementation of goals.

Health-related progress evaluation indicators are as follows:

- Prevalence of underweight in children under 5;
- Under 5 mortality rate;
- Infant mortality rate;
- Percent of children ages 12-23 months immunized against measles;
- Maternal mortality ratio;
- Proportion of births attended by skilled health personnel;
- Contraceptive prevalence rate;
- Adolescent birth rate;
- Antenatal care coverage;
- Unmet need for family planning;
- HIV prevalence among population aged 15-24 years;
- Proportion of population with advanced HIV infection with access to antiretroviral drugs;
- Incidence and death rates associated with malaria;
- Incidence, prevalence and death rates associated with tuberculosis;
- Proportion of population using an improved drinking water source;
- Proportion of population using an improved sanitation facility.

Prevalence of underweight in children under five

Undernutrition among children remains common in many parts of the world. According to recent estimates, 115 million children under 5 years of age worldwide are underweight. Although global prevalence is decreasing, progress is uneven.

World Health Statistics, 2011, WHO

According to the assessments of United Nations Children's Fund, Georgia is among those countries, where actions taken to reduce malnutrition will remarkably improve indicators of growth and underweight in children under 5, which is correlated with the children mortality rate in this age group.
http://demoscope.ru/weekly/2011/0465/biblio04.php

Cattaneo A, et.al. Strategic directions in health and nutrition aiming at accelerating achievement of MDG 4 and related objectives in the countries of Central and Eastern Europe and Commonwealth of Independent States, 2008, UNICEF

In those countries, where routine statistics are collected using aggregated forms, the assessment of prevalence of underweight in children is performed by different surveys. The full-scale Multiple Indicator Cluster Survey (MICS) is one of such surveys. Its methods and standards were developed to collect information related to conditions of children and women. In 1995, 2000 and 2005-2006, three rounds of surveys were carried out worldwide in more than 50 countries. The latest MICS in Georgia was performed in 2005 by the National Centre for Disease Control and National Statistics Office of Georgia with the financial and technical support of UNICEF. According to the survey in Georgia only 2.1% of children under the age of 5 years were moderately underweight, and the index of extremely underweight children was 0.3%. Almost 5% of children suffered from moderately retarded growth or they were underweighted compared with their height.

In 2009, a Georgian National Nutrition Survey was performed. This survey was aimed on studying the nutrition status of different groups in the country. The survey results showed that in Georgia underweight is not frequent in children aged under five. Prevalence of underweight was less than 2.3% in all total, as well as in separate groups. These data correspond to child growth standards, recommended by World Health Organization (Georgian National Nutrition Survey, 2009).

Prevalence of underweight in children under five (%), 2009

	Severe underweight	Moderate underweight	None (normal)
All	**14 (0.5%)**	**25 (0.6%)**	**2981 (98.8%)**
Sex			
Male	7 (0.4%)	19 (0.9%)	1599 (98.7%)
Female	7 (0.6%)	6 (0.4%)	1382 (99.0%)
Age			
< 12 Months	3 (0.4%)	7 (0.8%)	561 (98.7%)
12-23 Months	3 (0.7%)	4 (0.7%)	627 (98.6%)
24-35 Months	1 (0.1%)	2 (0.3%)	573 (99.6%)
36-47 Months	5 (1.3%)	4 (0.6%)	518 (98.1%)
48-59 Months	2 (0.2%)	8 (0.8%)	702 (99.0%)

	Severe underweight	Moderate underweight	None (normal)
Region			
Tbilisi	3 (0.8%)	1 (0.3%)	360 (98.8%)
Ajara and Guria	2 (0.6%)	1 (0.3%)	337 (99.1%)
Imereti and Racha-Lechkhumi	1 (0.5%)	2 (1.0%)	204 (98.6%)
Kakheti	2 (0.7%)	1 (0.3%)	304 (99.0%)
Kvemo Kartli	2 (0.3%)	8 (1.1%)	751 (98.7%)
Samegrelo	1 (0.4%)	3 (1.1%)	272 (98.6%)
Samtskhe-Javakheti	3 (0.6%)	8 (1.6%)	490 (97.8%)
Shida Kartli and Mtskheta-Mtianeti	0	1 (0.4%)	263 (99.6%)

Source: Georgian National Nutrition Survey

Formatted: German (Austria)

Under-five mortality rate*

The total number of deaths of children under 5 years old fell from 12.4 million in 1990 to 8.1 million in 2009. The mortality rate in children under 5 years old has fallen correspondingly from 89 per 1000 live births in 1990 to 60 per 1000 live births in 2009, representing a reduction of about one third.

World Health Statistics, 2011, WHO

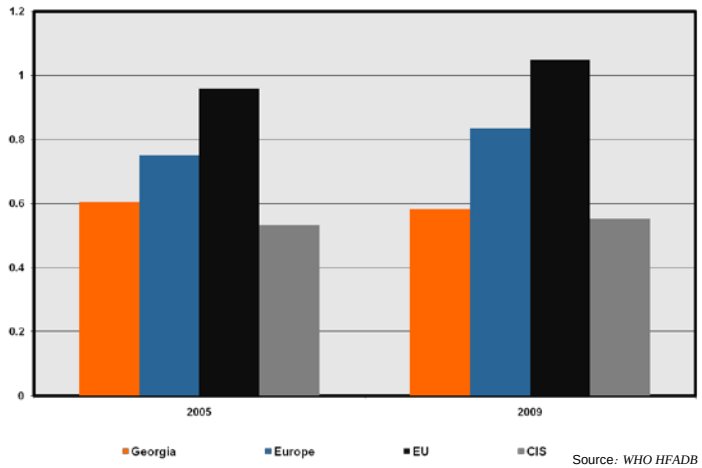
Maternal and Child Health protection is considered as one of the main priorities of healthcare in Georgia, which is reflected in implementation of many governmental programmes.

National Statistics Office of Georgia (GeoStat) and routine medical statistics collected by the National Center for Disease Control and Public Health (NCDC&PH) are the main sources of data about under five mortality rate. Official statistical data periodically are assessed implementing different surveys. Particularly, in Georgia, the full-scale Reproductive Health Survey (GERHS) is conducted with the 5-years intervals. Apart from that, the WHO periodically makes estimates of indicators for country, regional and global levels. Difference between official and evaluative data is caused by the quality of recording. In 2009, according to the assessment of the WHO, a ratio of the recorded and estimated values of the under-five mortality rates in Georgia is still lagging behind the same indicator in the European Union (see Figure 1.1).

According to the last assessment of the WHO, in 2010, under-five mortality rate in Georgia was 22.0, which is different from official and survey data.

* *See additional information in the chapter "Maternal and Child Health".*

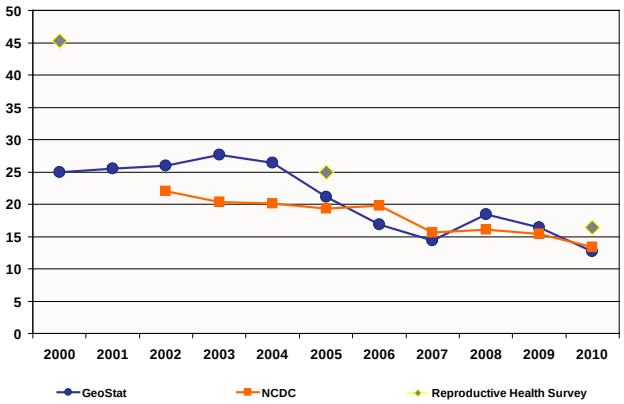
Figure 1.1 **Ratio reported to estimated under-five mortality rates,, Georgia, the European Region, the European Union, the CIS**



Source: *WHO HFADB*

In Georgia, since 2003, according to the official statistics, there has being registered a trend of decline of under-five mortality rate. According to the National Statistics Office of Georgia the indicator has decreased from 27.6 to 12.7; the same indicator has dropped from 20.3 to 13.4, according to the Medical Statistics (See Figure 1.2).

Figure 1.2 **Under-five mortality rate per 1000 live births, Georgia**



Thus, according to the official statistics, under-five mortality rate was quite low and varied from 12.7 to 13.4. Taken into account the fact, that in many countries statistical reporting has certain drawbacks, survey data are very important. According to GERHS data under-five mortality rate, in 2010, reached 16.4.

Under-five mortality rates, GERHS

	1995-1999	2000-2004	2005-2009
Indicator per 1000 live births	45.3	25.0	16.4

The WHO has defined 16.0 as the target indicator for under-five mortality rate for the year 2015. Thus, the task of the Millennium Development Goal 4: the reduction of under-five mortality rate by 2/3 was almost accomplished by the year 2010.

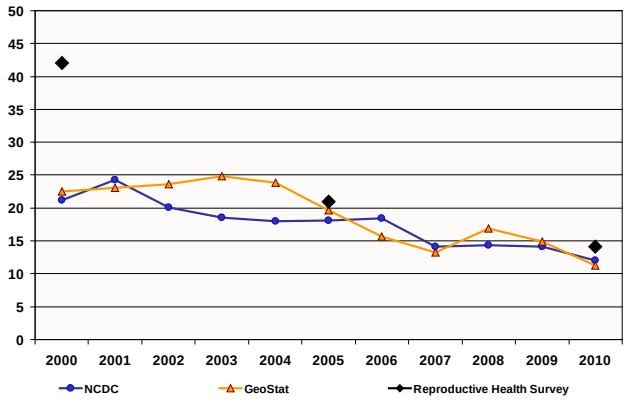
Infant mortality rate*

According to World Health organization global data, in 2009, 40% of all deaths among children under 5 years old occurred in the neonatal period (deaths during the first 28 days of life). *3/4 of newborns die during the first week. Correspondingly, reduction of infant mortality is the priority task in all countries.*

World Health Statistics, 2011, WHO

In 2000-2010, according to official statistics and survey data, there was a decline of infant mortality rate. In 2010, the indicattors from these two sources came closer to each other (See Figure 1.3).

Figure 1.3 **Infant mortality rate per 1000 live births, Georgia**



Infant mortality rates, GERHS

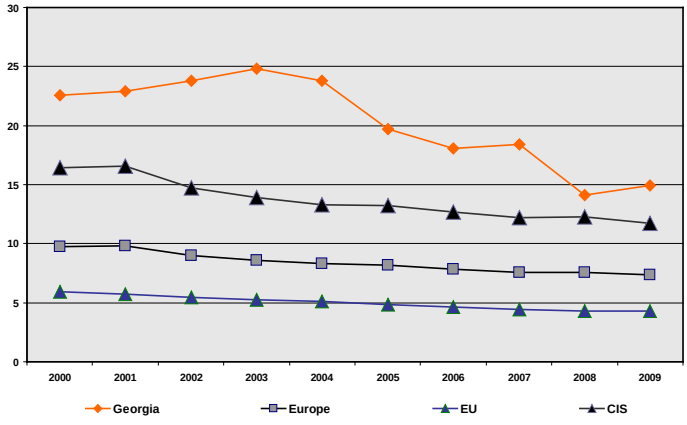
	1995-1999	2000-2004	2005-2009
Rate per 1000 live births	41.6	21.1	14.1

Infant mortality rate in Georgia is quite high if compared to European countires. In 2009, this indicator in Georgia was about twice as high as the average rate for the European region. While comparing indicators we should also take into consideration a pace of their change, which is

* *See additional information in the chapter "Maternal and Child Health".*

much faster in Georgia than in European and CIS countries. In Georgia in 2000 – 2009, infant mortality rate dropped by 34%, although, in European and CIS countries the reduction of this indicator stood at 28% (See Figure 1.4).

Figure 1.4 Infant mortality rate per 1000 live births, Georgia, the European region, the European union, the CIS



Source: WHO HFADB

In 2010, perinatal period diseases made up 73.3%, respiratory system diseases - 5.1%, and birth defects - 2.4% in the structure of infant mortality.

Percent of children ages 12-23 months immunized against measles*

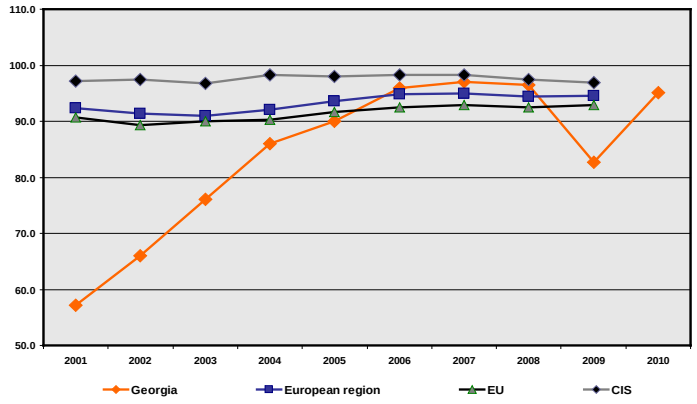
Management of diseases exposed to preventive vaccination is especially significant in achieving Millennium Development Goals, which becomes the guarantee of improving the situation. By 2009, global measles immunization coverage was 82% among children aged 12-23 months. This was up from 73% in 1990 with low-income countries experiencing the highest increase during that time.

World Health Statistics, 2011, WHO

During last years, Georgia maintained good preventive immunization coverage. The trend of increase of measles immunization rate has been obvious since 2001; in 2010, vaccination coverage achieved 95.1% (See Figure 1.5).

* *See additional information in the chapter "Population's health status" – Infectious diseases.*

Figure 1.5 Immunization against measles; coverage of 12 months olds (%) Georgia, the European region, the European Union, the CIS



Source: WHO HFADB

Maternal mortality ratio*

The number of women dying as a result of complications during pregnancy and childbirth has decreased by 34% - from 546 000 in 1990 to 258 000 in 2008. Although such progress is notable, the annual rate of decline of 2.3% is less than half of the 5.5% needed to achieve the target of reducing the maternal mortality ratio by three quarters According to recent estimates, percentage of decrease is twice as little. Almost all maternal deaths (99%) in 2008 occurred in developing countries.

World Health Statistics, 2011, WHO

The health and lives of newborn babies are closely related to maternal health and life because not enough and adequate care during pregnancy, childbirth and puerperal period is associated with the lack of care in infants. Infants whose mothers died due to causes related to pregnancy have more risks of dying compared to others.

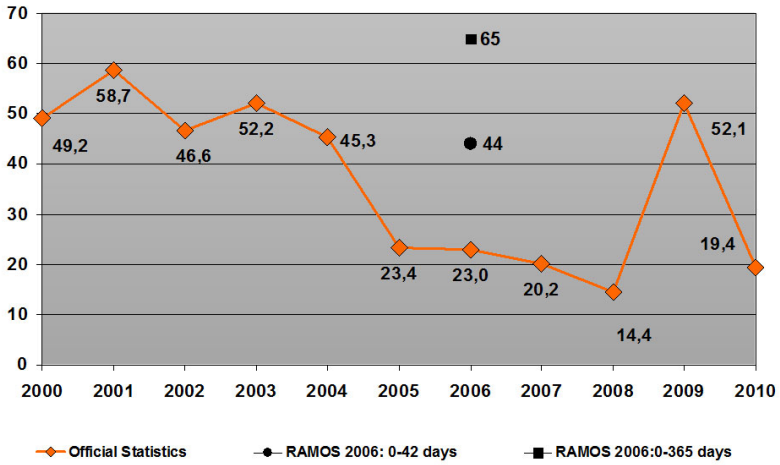
UNICEF, 2005

In general, complications of pregnancy and childbirth are the main causes of disability and death in women of reproductive age. This is especially typical for developing countries.

In 2003-2008, in Georgia a trend of decrease of maternal mortality ratio was registered. The Reproductive Age Mortality Study (GERAMOS), which investigated the year 2006, showed that officially reported data significantly differed from the survey data (See Figure 1.6).

* *See additional information in the chapter "Maternal and child health".*

Figure 1.6 Maternal mortality ratio per 100000 live births, Georgia

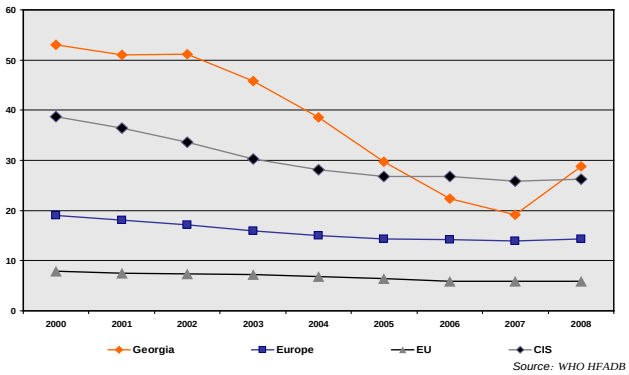


In 2009, maternal mortality ratio sharply increased, this can be explained by several reasons: in general, improvement of registration of deaths, active search of cases of maternal deaths by NCDC&PH, fusion of data from medical and demographic statistics, deaths due to pandemic influenza (H1N1).

In 2010, maternal mortality ratio per 100000 live births was 19.4; this was by 62.8% lower than the similar indicator in 2009. The indicator is counted based on the fusion of data from National Statistics Office of Georgia and National Centre for Disease Control and Public Health.

Method of moving averages is widely used to compare maternal mortality ratios. This method better evaluates dynamics of changing data and corrects “leaps”. According to the WHO data, three-year moving average of maternal mortality ratio in Georgia is higher than in countries of the European region, although the tendency of its decline is clearly notable. Since 2000, three-year moving average of maternal mortality ratio in Georgia has decreased by 49%. A decline of this indicator in was far lower in countries of the European Union (28%) and the CIS (36%) (See Figure 1.7).

Figure 1.7 Maternal mortality ratio per 100000 live births, 3-year moving average, Georgia, the European Region, the European Union, the CIS



Source: WHO HFADB

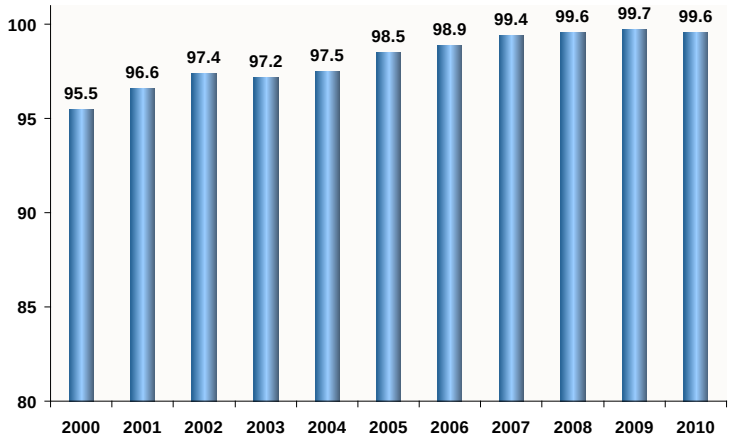
Proportion of births attended by skilled health personnel

The proportion of deliveries attended by skilled health personnel rose from 58% in 1990 to 68% in 2008.

World Health Statistics, 2011, WHO

Proportion of births attended by skilled medical personnel is traditionally high in Georgia. According to data from routine medical statistics, this indicator was 99.6% in 2010 (See Figure 1.8).

Figure 1.8 Proportion of births attended by skilled medical personnel (%), Georgia



Surveys conducted in Georgia also confirm high proportion of births attended by skilled medical personnel. According to the MICS 2005, almost all deliveries (93.8%) had been attended by professionals. Most of these deliveries were attended by doctors and only 4.5% of deliveries were attended by nurses and midwives; 95.5% of deliveries were in healthcare institutions.

According to the data of **GERHS**, in 1999 and 2005, approximately 8% of women delivered at home and most of them did not get qualified medical assistance. In 2010, this indicator reduced to 1.2%.

Proportion of births attended by skilled medical personnel (%), GERHS

	1995-1999	2000-2004	2005-2009
Births attended by skilled medical personnel	92.2	92.5	98.8

Contraceptive prevalence rate

Latest estimates suggest that 63% of women in developing countries aged 15–49 years who are married or in another type of union are using some form of contraception.

World Health Statistics, 2011, WHO

A large proportion of women in the countries of the Caucasus – Armenia, Azerbaijan and Georgia – rely on traditional methods, particularly withdrawal, to control their fertility. Partly as a result, these countries have high rates of abortion.

Progress for Children: A Report Card on Maternal Mortality (No. 7), UNICEF, 2008

Use of contraception is the significant determinant of the difference between ratios of fertility and abortion.

According to the MICS2005, 31.5% of married or having partners women used some type of contraception. The most popular method is intrauterine contraceptive device, which was used by 8.2% of sexually active women. Another common method – periodic abstinence (calendar / rythmic method) - was used by 6.7% of sexually active women, and 5.9% of sexually active women used condom. 11.8% of sexually active women used traditional and 20% - modern methods of contraception.

According to the GERHS, prevalence of contraception (including modern methods) in Georgia was increasing in 1995-2009 and in 2010 it totaled to 32%. Increase of contraception prevalence was mainly caused by increase of usage of modern methods (8.9%). Decrease of usage of traditional methods of contraception shows slow dynamics.

Contraceptive prevalence (%) in women aged 15-44, GERHS

	1995-1999	2000-2004	2005-2009
Any method of contraception	24.7	28.4	32.0
Among them			
Modern methods	12.1	16.1	21.0
Traditional methods	12.6	12.3	11.0

Use of condom during the last sexual intercourse, GERHS

	1995-1999	2000-2004	2005-2009
Women aged 15-44	6.3	5.3	8.3

Adolescent birth rate

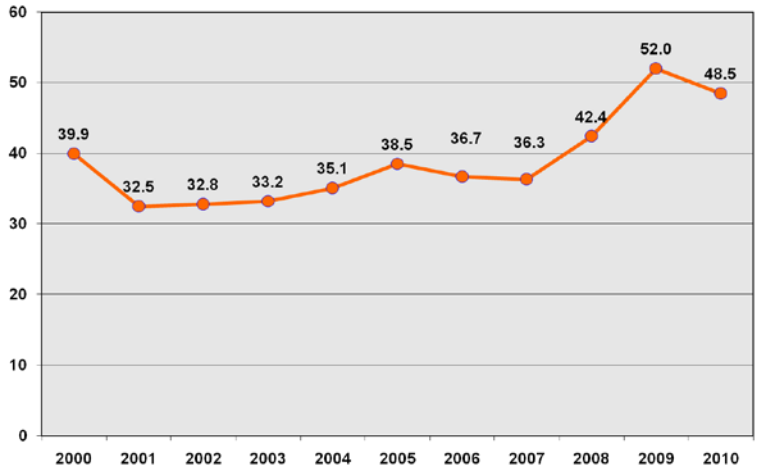
Between 1990 and 2007, declines in adolescent birth rates were significant. However, most progress occurred during the first decade. Since 2000, progress has stalled.

How Universal is Access to Reproductive Health? A review of the evidence, September 2010, UNFPA

According to the National Statistics Office, in Georgia, in 2000-2009, fertility rate of women aged under 20 increased by 30.2%, although, in 2010, compared to the previous year, it decreased

by 6.7%. Decrease in adolescent fertility can be explained by certain measures taken by the country, namely projects implemented in Georgia by international organizations (WHO, UNFPA, UNICEF, JSI, and etc.), which supported components related to adolescent reproductive health. Implementation of appropriate educational programs can be seen as one way of achieving the further progress (See Figure 1.9).

Figure 1.9 Adolescent fertility rate per 1000 women aged under 20, Georgia



According to official statistics, women aged under 20 were responsible for 12.6% of live births. Approximately the same proportion showed the **GERHS** (2010 – 13.7%).

Proportion of live births to women aged under 20 (%), GERHS

	1995-1999	2000-2004	2005-2009
Proportion of live births to women aged under 20	14.6	14.6	13.7

Antenatal care coverage

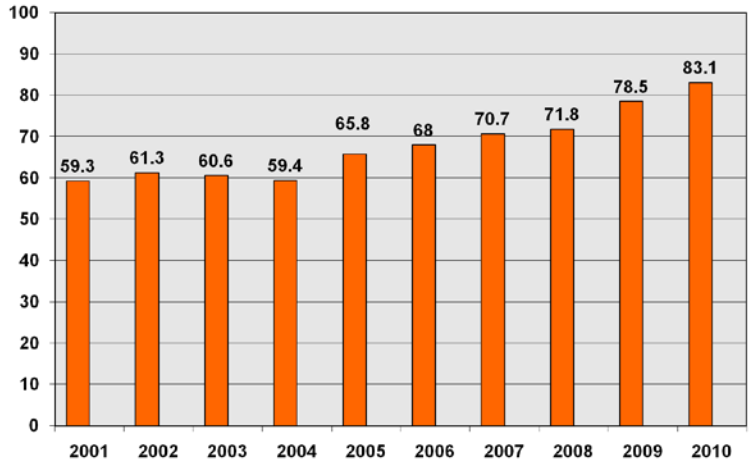
Although, 80% of pregnant women received antenatal care at least once during the period 2000-2010, only 53% received the WHO-recommended minimum of four antenatal visits.
World Health Statistics, 2011, WHO

Standard prenatal care during non-complicated pregnancies involves routine visits related to gestational age, namely: monthly visits until 12-week pregnancy; visits once in two months during 12-30 week pregnancy and weekly or once visits during two months until childbirth.

According to the new model recommended by WHO, the first visit involves proper evaluation of the health status and potential risk-factors and according to the results there are two groups of

pregnant women: 1. Women who should be included in the basic antenatal care program (75% of pregnant women) and 2. Women who need higher level of care.
Antenatal and postnatal care is one of the central components of mother and child health system in Georgia. Since 2000, according to official statistics, coverage with 4 complete antenatal visits has been increasing and in 2010 it totaled to 83.1% (See Figure 1.10).

Figure 1.10 Coverage with 4 complete antenatal care visits (%),, Georgia



According to the MICS2005 data, antenetal care coverage was quite high in Georgia. During pregnancy almost all women (97.4%) visited antenatal care institutions at least once.

According to the GERHS, antenatal care coverage rates significantly exceeded data of routine statistics: it was almost universal in period 2005-2009 and totaled to 98.4%.

Antenatal care coverage (at least 4 visits and at least 1 visit) (%), GERHS

	1995-1999	2000-2004	2005-2009
1 visit	90.8	95.4	98.4
4 visits	85.3	80.7	92.7

Unmet need for family planning

At the global level in 2007, unmet need for family planning was 11 per cent. In the least developed countries, it was more than 24 per cent. Since 1990, the unmet need for family planning has declined significantly in a few regions.

How Universal is Access to Reproductive Health?
A review of the evidence. September 2010, UNFPA

In Georgia, in 1995-2009, according to the GERHS2010, the rate of unmet need for family planning reduced and reached 7.7%.

Unmet need for family planning (%), GERHS

	1995-1999	2000-2004	2005-2009
Women aged 15-44	14.8	10.1	7.7

HIV prevalence among population aged 15-24 years *

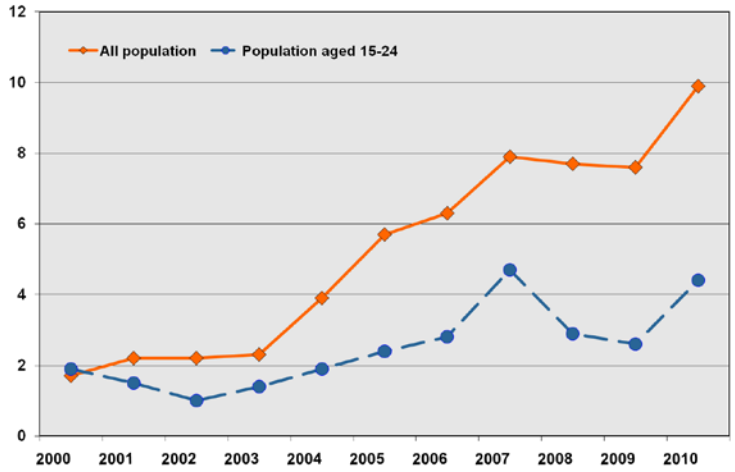
The number of people living with HIV worldwide continues to grow, reaching an estimated 33.3 million people in 2009 - 23% higher than in 1999. In 2009, there were an estimated 2.6 million new infections and 1.8 million HIV/AIDS-related deaths.

The annual number of estimated new HIV infections is steadily declining. In 2009, the estimated number of new HIV infections was 19% lower than in 1999.

World Health Statistics, 2011, WHO

In 2000-2007, in Georgia incidence of HIV-infection was sharply growing. It increased in the total population 4.6-times and in the group aged 15-24 – 2.5-times. After slight decrease during the following years, it increased again in 2010. In new cases, according to the modes of transmission, injecting drug users (47.2%) and heterosexual intercourses (43.5%) constituted a significant share (See Figure 1.11).

Figure 1.11 Incidence of HIV/AIDS per 100000 populations, Georgia



According to the World Health Statistics, Georgia is among the countries with low prevalence of HIV/AIDS and it holds one of the last places even among them. However, taken into consideration expert estimates and supporting factors (such as fast growth of HIV/AIDS prevalence in adjoining countries, rather high level of spreading of injecting drug use, growing migration, and etc.) there is still a great risk for a fast growth of HIV/AIDS morbidity in Georgia.

* *See additional information in the chapter "Population's health status" – Infectious diseases.*

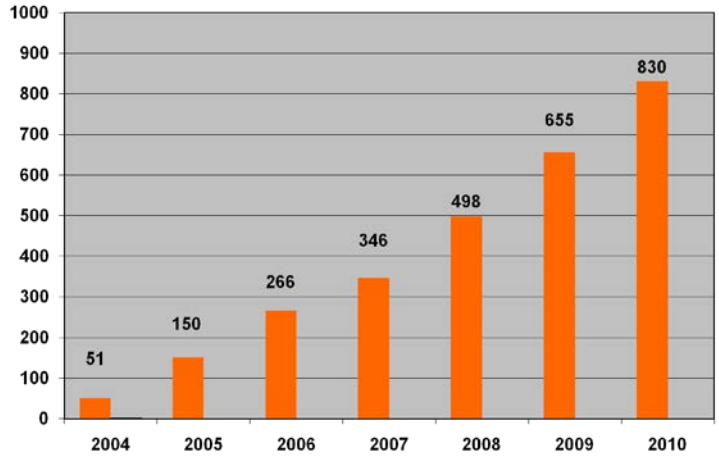
Proportion of population with advanced HIV infection with access to antiretroviral drugs

The increasing number of people living with HIV reflects in part the life prolonging effects of antiretroviral therapy (ART). As of December 2009, ART was available to more than 5 million people in low-income and middle-income countries. An additional 700 000 people received treatment in high-income countries in 2009, bringing the global total to almost 6 million.

World Health Statistics, 2011, WHO

In recent years the number of patients receiving antiretroviral therapy has grown. In 2004-2010, the number of patients receiving antiretroviral therapy grew 16-times (see Figure 1.12).

Figure 1.12 Number of people receiving antiretroviral therapy in Georgia



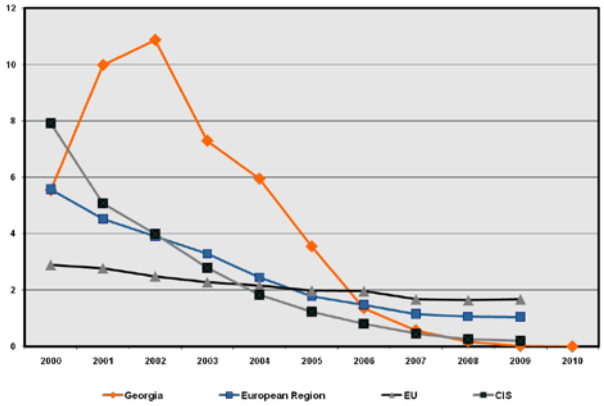
Incidence and death rates associated with malaria

A growing number of countries have recorded decreases in the number of confirmed cases of malaria and/or reported admissions and deaths since 2000. In 2009, the WHO European Region reported for the first time no cases of Plasmodium falciparum malaria.

World Health Statistics, 2011, WHO

In 2005, all the countries of European Region of the WHO adopted the Tashkent Declaration: "The Move from Malaria Control to Elimination". Georgia assumed the obligation to fight malaria by signing the Tashkent Declaration. Georgian national strategy implies stopping malaria transmission by 2013 and further certification of malaria elimination. Since 2002 incidence of malaria in Georgia has been decreasing and totals to zero in 2010 (See Figure 1.13). No of deaths due to malaria were registered in Georgia.

Figure 1.13 Incidence of malaria per 100000 populations, Georgia, the European Region, the European Union, the CIS



Source: WHO HFADB

Incidence, prevalence and death rates associated with tuberculosis *

The annual global number of new cases of tuberculosis continues to increase slightly as slow reductions in incidence rates per capita are offset by population increases. In 2008, the treatment success rate reached 86% worldwide and 87% in countries with a high burden of disease. In 2009, prevalence was estimated at 12-16 million cases, with an estimated 9.4 million new cases. An estimated 1.3 million HIV-negative people died from tuberculosis in the same year. Mortality due to this disease has fallen by more than a third since 1990, and if the current rate of decline is sustained at the global level, the MDG targets of halving tuberculosis prevalence and deaths by 2015 could be achieved.

World Health Statistics, 2011, WHO

After dissolution of the Soviet Union, tuberculosis has become one of the most significant problems of public health in Georgia. According to WHO data, incidence of tuberculosis per 100000 population in 1989-1996 increased from 29.6 to 165.0. During the following years detection and registration systems for tuberculosis were significantly improved and epidemiologic situation somehow streamlined. Since 1997, average prevalence rate totaled to 142.2; incidence rate – 96.1.

In 2005-2006, survey of the first-line anti-tuberculosis drug resistance (DRS), recommended by WHO, was conducted in Georgia. According to the results of the survey, a multidrug-resistent tuberculosis was revealed in 6.8% of smear-positive new cases and in 27.4% of retreated cases. Although, the second-line anti-tuberculosis therapy has gradually become available within the national TB program; since 2008 adequate therapy became available for all patients.

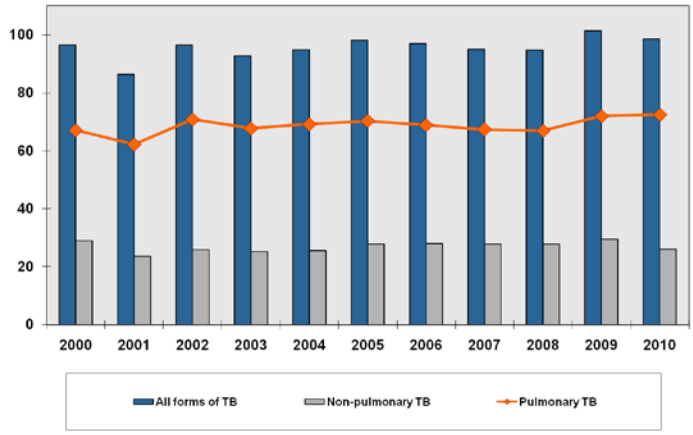
A control of tuberculosis has been established in Georgia at the level of primary healthcare with the support of the Global Fund. Systems of sputum sample collection and transportation, routine implementation of DRS were introduced. DOTS (directly observed treatment, short-course) has

* *See additional information in the chapter "Population's Health Status" – Infectious diseases.*

been extended and fully implemented, express diagnostic methods have been introduced in national reference and regional reference laboratories; massive active and passive screenings have been implementated in the penitential sector and etc.

In 2010, compared to the previous year, there was noted a reduction of tuberculosis morbidity. Prevalence rate decreased by 4.1%, incidence - by 2.8% (See Figure 1.14).

Figure 1.14 Incidence of tuberculosis per 100000 populations, Georgia



Tuberculosis morbidity, official and estimated data, Georgia, 2010

	Official statistics	WHO
Number of registered cases of tuberculosis	5806	5100
Prevalence per 100000 population	130.4	118.0
New cases of tuberculosis	4392	4600
Incidence rate per 100000 population	98.6	107.0
Tuberculosis death rate per 100000 population	2.0	4.6

Source: National Centre for Tuberculosis and Lung Diseases, www.who.int/tb/data

Proportion of population using improved drinking-water sources

The percentage of the world's population with access to improved drinking-water sources increased from 77% to 87% between 1990 and 2008. One component of Target 7.C of MDG 7 is to halve the proportion of the population without sustainable access to safe drinking-water. Given the current rate, it is likely that this component will be met. Nevertheless, in 2008 some 884 million people still relied upon unimproved water sources - 84% of whom were living in rural areas.

World Health Statistics, 2011, WHO

Georgia is rich in drinking-water resources, although, providing the population with improved drinking-water still represents a problem. The main source of drinking water is groundwater, (90% in the water supply system). Most of the rural area population still uses water from individual wells and natural springs.

According to the MICS2005, 94.2% of population used improved drinking-water source. 78.9% of households have drinking-water piped into dwelling, for 17.3% it takes less than 30 minutes to bring water.

According to the GERHS proportion of population, to whom piped water, which properly met hygienic rules, is available has not essentially changed in the period of 2000-2009. For urban population, compared to rural, this indicator was 30% higher.

Availability of piped water, (%), GERSH

	2000-2004	2005-2009
Urban	96.1	96.8
Rural	66.2	65.9

Proportion of population using an improved sanitation facility

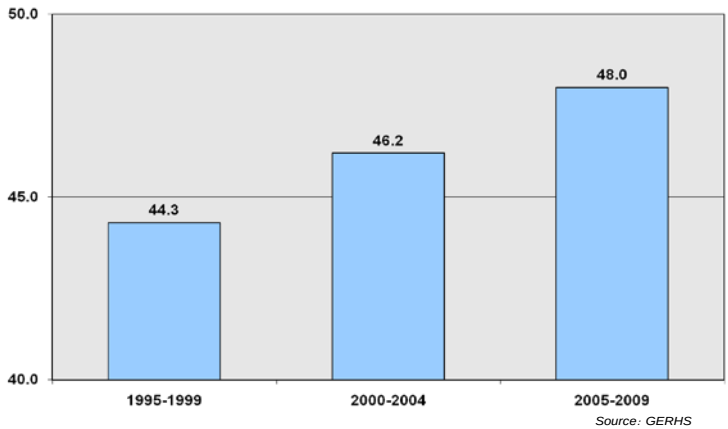
The other component of Target 7.C is to halve the proportion of the population without sustainable access to basic sanitation. Current rates of progress towards this are insufficient. In 2008, 2600 million people were not using improved sanitation facilities, including over 1100 million people with no access to toilets or sanitation facilities of any kind. If current trends continue, this component of Target 7.C will not be met.

World Health Statistics, 2011, WHO

According to the MICS2005, most of the population of Georgia (96.8%) lived in households with improved sanitation facilities. 56.3% of children aged 0-2 years were provided with toilets which followed proper hygienic rules.

According to the GERHS, availability of flashing toilets in households increased by 3.7% during 1995-2009 (See Figure 1.15).

Figure 1.15 Changes in availability of flashing toilets in households (%)



Source: GERHS

Table 1.1 Under-five mortality rate per 1000 live births, Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ajara	21.9	36.7	22.9	21	21.9	25.1	21.1	20.9	15.5	12.8	10.2
Tbilisi	43.7	37.3	35.4	31.9	28	28.4	29.6	21.1	24.6	21.5	16.9
Kakheti	23.2	21.2	17.7	9.7	13.5	8.2	9.1	7.8	7.4	9.5	8.8
Imereti	25.8	24.1	17.8	17.2	21.6	20	19.9	19.4	17	19.1	19.6
Samegrelo	10.6	9.9	8.1	9.1	6.9	6.8	6.7	5.9	2.7	4.0	3.9
Shida Kartli	28.2	35.4	13.5	17.6	14.1	8.5	8.2	5.8	3.1	9.1	9.1
Kvemo Kartli	13.3	9.8	9.1	5.7	8.0	5.5	5.9	5.4	3.7	5.5	7.7
Guria	21.2	13.4	10.2	10.3	12.3	5.6	12.4	7.9	3.1	1.8	1.8
Samtskhe-Javakheti	12.5	11.1	7.2	8.5	9	7.5	7.2	3.9	5.9	7.8	8.2
Mtskheta-Mtianeti	10.2	13.1	10.8	6.6	11.7	7.1	9.1	6.6	6.3	5.7	2.3
Racha-Lechkhumi and Kvemo Svaneti	8.0	3.3	14.0	8.4	10.8	0	0	8.1	0	0	13.3
Georgia	**27.2**	**26.7**	**22.1**	**20.3**	**20.1**	**19.4**	**19.7**	**15.6**	**16.0**	**15.4**	**13.4**

Table 1.2 Under-five mortality rate per 1000 live births, Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Male	28.0	28.7	29.5	30.1	27.3	20.8	16.9	15.2	19.0	18.0	14.0
Female	20.9	21.9	22.2	24.8	25.4	21.4	17.0	13.6	18.0	15.0	11.0
Both sexes	**24.9**	**25.5**	**26.0**	**27.6**	**26.4**	**21.1**	**16.9**	**14.4**	**18.0**	**16.0**	**13.0**

Source: National Statistics Office of Georgia

Table 1.3 Infant mortality rate per 1000 live births, Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ajara	35.4	33.4	20.4	18.0	21.4	23.0	20.7	19.1	15	12	9.0
Tbilisi	39.5	34.0	32.4	28.8	24.7	26.5	27.6	18.6	22	20	15
Kakheti	20.7	10.9	16.0	9.7	11.8	7.2	8.4	7.9	7.4	8.7	7.5
Imereti	24.5	22.4	16.4	17.2	19.7	19.7	18.8	18.8	15	19	19
Samegrelo	9.6	8.9	7.0	9.1	5.7	6.5	6.5	5.7	2.2	3.6	3.7
Shida Kartli	26.9	33.7	12.1	16.5	13.4	8.6	7.1	5.4	3.1	8.7	8.0
Kvemo Kartli	12.5	7.1	8.6	4.8	7.3	5.2	5.2	4.9	2.8	3.3	4.1
Guria	19.5	12.5	10.2	8.5	7.8	5.6	10.1	10.1	2.1	1.8	1.8
Samtskhe-Javakheti	11.6	9.4	6.3	6.6	8.6	6.6	6.3	2.9	5.9	7.3	6.4
Mtskheta-Mtianeti	10.2	13.1	10.8	6.6	10.0	7.1	9.1	2.2	6.3	5.7	2.3
Racha-Lechkhumi and Kvemo Svaneti	8.0	3.3	14.0	8.4	10.8	0.0	0.0	8.1	0	0	13
Georgia	**21.2**	**24.3**	**20.1**	**18.5**	**18.0**	**18.1**	**18.4**	**14.1**	**14**	**14**	**12.0**

Table 1.4 Infant mortality rate per 1000 live births, Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Male	25.5	25.8	26.6	26.8	24.4	19.5	15.6	14.4	17.0	17.0	13.0
Female	19.2	20.0	20.3	22.4	23.0	19.8	15.9	12.1	17.0	13.0	9.8
Both sexes	**22.5**	**23.1**	**23.6**	**24.8**	**23.8**	**19.7**	**15.7**	**13.3**	**17.0**	**15.0**	**11.0**

Source: National Statistics Office of Georgia

Table 1.5 Measles immunization coverage in children ages 12-23 months **(%), Georgia, 2000-2010**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ajara	76.7	97.4	93.5	91.4	93.5	94.0	92.2	93.8	86.7	68.9	98.5
Kakheti	82.0	86.9	96.7	83.5	90.9	97.0	96.2	93.2	97.5	77.6	98.8
Imereti	78.7	86.3	100.0	89.5	86.0	96.2	96.9	97.8	98.9	89.5	93.4
Samegrelo	72.3	83.6	89.4	72.9	83.5	95.8	91.9	97.9	96.5	82.7	91.8
Shida Kartli	77.9	91.1	80.0	77.5	81.9	98.6	92.7	100.0	98.8	82.0	100.0
Kvemo Kartli	67.3	97.5	82.9	61.9	76.0	85.0	96.7	96.3	96.9	80.8	83.7
Guria	87.4	89.0	100.0	86.9	81.0	93.1	93.5	96.2	98.9	91.1	99.7
Samtskhe-Javakheti	78.5	92.9	94.2	84.0	100.0	95.1	98.0	90.6	92.5	81.8	95.3
Mtskheta-Mtianeti	70.6	71.1	83.7	73.9	93.4	92.9	94.4	94.5	94.2	93.3	95.8
Racha-Lechkhumi and Kvemo Svaneti	76.2	86.5	85.3	86.1	94.2	93.8	86.8	96.6	93.2	93.8	96.4
Georgia	**62.3**	**90.0**	**92.9**	**82.2**	**86.5**	**91.2**	**95.1**	**97.0**	**96.5**	**82.7**	**94.3**

Table 1.6 Maternal mortality ratio per 100000 live births, Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ajara	21.7	43.6	89.9	47.3	44.2	45.6	22.7	0	73.8	48.7	0
Tbilisi	68.6	63.1	48.9	70.9	59.4	31	34.9	14.1	8.2	34.3	18.9
Kakheti	55.9	32.2	0	0.0	34.6	0	0	0	0	0	53.4
Imereti	56.9	44.9	62.9	49.1	62.6	0	30.8	58.6	0	109.3	43.4
Samegrelo	24.7	31.6	0.0	29.5	29.9	29.5	27.0	0	48.4	44.8	0
Shida Kartli	0	0	71.4	0	0	0	0	0	0	0	0
Kvemo Kartli	38.0	155.9	24.7	51.4	26.0	0	0	46.9	0	20.4	0
Guria	84.6	0.0	0	0.0	0	111.1	0	0	0	0	0
Samtskhe-Javakheti	44.5	133.7	0	47.0	0	0	0	47.8	0	86.3	45.5
Mtskheta-Mtianeti	0	0	0	0	0	176.7	0	0	0	0	0
Racha-Lechkhumi and Kvemo Svaneti	398.4	0	0	0	0	0	0	0	0	0	0
Georgia	**49.2**	**58.7**	**42.2**	**49.9**	**43.13**	**23.4**	**23.0**	**20.2**	**14.3**	**43.8***	**19.4**

** 43.8 maternal mortality counted by Disease Control Centre. By fusion data of GeoStat and NCDC, this indicator is 52.1*

Table 1.7 Proportion of births attended by skilled health personnel (%), Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ajara	90.2	89.5	94.5	93.8	95.8	97.4	97.8	98.6	98.7	99.3	99.3
Tbilisi	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Kakheti	81.1	84.3	90.6	85.2	81.8	89.7	88.3	98.1	96.6	97.7	95.8
Imereti	98.7	98.8	98.8	99.4	99.5	100.0	99.9	100.0	100.0	100.0	99.9
Samegrelo	99.0	98.7	98.4	99.2	99.6	99.6	100	99.8	99.9	99.9	99.5
Shida Kartli	97.5	99.5	99.7	99.9	98.5	99.9	99.6	99.9	100.0	99.9	99.9
Kvemo Kartli	89.3	91.6	91.5	91.7	93.1	96.8	98.2	96.2	99.1	99.0	99.8
Guria	93.5	96.7	96.0	92.7	96.6	99.1	100.0	100.0	100.0	99.3	99.8
Samtskhe-Javakheti	99.7	98.6	94.9	99.8	99.7	96.8	98.8	99.2	99.6	99.1	98.8
Mtskheta-Mtianeti	99.0	99.5	98.6	89.7	98.5	93.7	99.5	100.0	100.0	100.0	100.0
Racha-Lechkhumi and Kvemo Svaneti	91.7	99.3	100.0	96.2	82.6	96.4	95.6	100.0	96.2	98.9	100.0
Georgia	**95.5**	**96.6**	**97.4**	**97.2**	**97.5**	**98.5**	**98.9**	**99.4**	**99.6**	**99.7**	**99.6**

Table 1.8 Adolescent fertility rate, Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Per 1000 women aged under 20	39.9	32.5	32.8	33.2	35.1	38.5	36.7	36.3	42.4	52.0	48.5

Source: National Statistics Office of Georgia

Table 1.9 Antenatal care coverage (4 complete visits) in women aged 15-49 (%), Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Abkhazia	NA	NA	NA	NA	12.5	NA	78.2	81.6	NA	NA	77.2
Ajara	69.4	81.8	81.0	73.1	77.2	80.8	82.8	86.2	85.2	86.4	88.9
Tbilisi	59.2	59.6	58.2	60.1	60.4	65.4	66.8	70.8	73.9	79.7	80.8
Kakheti	71.1	75.9	72.8	66.2	56.6	63.8	61.4	61.0	61.4	75.7	86.5
Imereti	59.5	71.9	57.2	53.7	54.8	62.5	69.2	69.9	70.3	80.5	86.0
Samegrelo	65.7	81.6	57.5	60.1	52.5	61.2	71.0	77.8	80.3	87.7	91.6
Shida Kartli	58.2	79.1	61.9	67.0	84.4	93.0	93.4	96.7	96.2	95.3	97.9
Kvemo Kartli	64.0	70.7	54.6	53.3	43.6	50.6	45.0	40.5	39.6	47.9	63.4
Guria	61.3	82.2	55.8	54.9	51.8	57.8	61.3	55.0	56.2	69.7	75.9
Samtskhe-Javakheti	54.2	54.6	52.7	61.6	59.9	67.2	64.9	75.6	79.4	83.7	85.8
Mtskheta-Mtianeti	45.9	52.0	52.9	59.6	43.9	54.5	45.2	51.3	65.4	79.3	71.5
Racha-Lechkhumi and Kvemo Svaneti	41.6	65.4	58.4	64.2	51.3	66.8	55.2	71.0	49.0	55.3	77.9
Georgia	61.6	59.3	61.3	60.6	59.4	65.8	68.0	70.7	71.8	78.5	83.1

Table 1.10 Incidence of HIV infection per 100000 populations, Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ajara	5.8	2.4	3.2	3.8	6.2	7.5	11.1	14.0	8.4	9.7	9.1
Tbilisi	2.6	3.3	4.7	3.6	6.7	7.9	7.9	9.5	11.8	11.7	14.1
Kakheti	0.7	0.5	0.3	0.7	0.8	2.5	4.2	3.5	2.7	6.0	5.2
Imereti	1.0	1.0	1.4	1.3	3.5	4.4	6.4	8.7	6.3	5.2	10.4
Samegrelo	2.5	6.1	2.8	5.0	4.6	11.5	8.3	12.6	12.0	9.8	13.5
Shida Kartli	0.0	0.6	1.0	0.3	0.7	1.6	2.6	3.5	3.8	3.8	5.2
Kvemo Kartli	0.0	0.6	0.4	0.6	0.2	1.6	3.6	3.3	2.8	2.5	4.0
Guria	0.7	0.0	2.8	0.7	1.4	7.9	7.2	4.3	2.9	4.3	7.9
Samtskhe-Javakheti	0.0	0.0	0.0	0.0	5.4	3.9	2.9	1.0	0.0	1.4	1.9
Mtskheta-Mtianeti	0.8	0.8	0.0	0.8	0.8	1.6	1.6	3.2	2.5	0.0	3.7
Racha-Lechkhumi and Kvemo Svaneti	1.9	0.0	0.0	0.0	4.1	4.1	2.0	0.0	0.0	0.0	2.1
Georgia	1.7	2.2	2.2	2.3	3.9	5.7	6.3	7.9	7.7	7.6	9.9

Table 1.11 Incidence of HIV infection per 100000 populations by age and sex, Georgia, 2000-2010

	2006	2007	2008	2009	2010
Male					
0-14	1.2	2.2	1.5	0.5	2.0
15-24	1.6	2.7	2.4	0.8	4.7
25+	14.7	17.4	16.9	17.2	21.2
Total	9.7	11.8	11.4	11.2	14.8
Female					
0-14	0.2	2.0	1.3	0.5	1.0
15-24	3.8	6.5	3.3	4.1	3.9
25+	4.7	5.1	6.4	6.4	8.1
Total	3.6	4.8	4.9	4.9	6.0

Table 1.12 Incidence of malaria per 100000 populations, Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ajara	0	0	0	0.8	0.53	0	0	0	0	0	0
Tbilisi	0.5	1.1	0.7	0.7	0.4	0.2	0.1	0.1	0	0.2	0
Kakheti	29.2	81.6	104.9	66.6	28.2	13.8	7.6	3.5	0.7	0	0
Imereti	0	0	0.1	0.1	0.3	0	0	0	0	0	0
Samegrelo	0.2	0	0	0	0	0	0.2	0	0	0	0
Shida Kartli	0	0	0.3	0.3	0	0	0	0	0.3	0	0
Kvemo Kartli	9.4	14.8	7.2	6.6	23.5	19.3	10.2	1.8	0.8	0	0
Guria	0	18.7	1.4	0	0	0.7	0.25	0.7	0	0	0
Samtskhe-Javakheti	0	0	0.5	0	8.7	0	0	0	0	0	0
Mtskheta-Mtianeti	0	0	0.8	0	0	0	0	0	0	0	0
Racha-Lechkhumi and Kvemo Svaneti	0	0	0	0	0	0	0	0	0	0	0
Georgia	3.8	9.9	10.9	7.2	5.9	3.5	1.4	0.6	0.2	0.02	0

Table 1.13 Incidence of tuberculosis per 100000 populations, Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ajara	150.5	101.5	111.4	140.7	151.3	163.3	148.9	141.8	129.0	124.8	119.9
Tbilisi	99.1	104.6	123.2	114.8	110.3	101.7	106.5	106.6	124.0	111.6	100.4
Kakheti	97.3	81.4	80.6	73.4	70.7	68.0	56.2	67.8	54.8	59.5	58.5
Imereti	70.5	55.6	59.6	70.6	77.6	82.8	64.2	59.4	57.6	64.7	54.5
Samegrelo	101.1	89.9	108.6	96.5	105.8	111.4	101.4	95.4	89.3	101.9	86.8
Shida Kartli	95.7	85.5	83.8	83.9	84.1	68.1	87.0	68.7	62.0	70.6	66.4
Kvemo Kartli	61.2	52.1	75.4	58.5	62.5	74.4	57.5	68.6	69.3	80.3	68.0
Guria	118.7	125.5	136.8	97.8	97.7	110.9	97.1	76.3	82.9	78.2	80.7
Samtskhe-Javakheti	41.4	28.4	39.5	41.8	37.1	63.6	74.4	55.8	46.7	50.1	30.2
Mtskheta-Mtianeti	46.7	63.1	65.4	71.7	71.8	70.2	92.5	92.1	72.8	70.2	88.0
Racha-Lechkhumi and Kvemo Svaneti	53.2	100.6	47.1	69.2	78.5	45.1	30.7	18.6	29.2	46.1	27.4
Georgia	96.1	86.4	96.5	92.8	94.8	98.1	96.9	95.0	94.7	101.4	**98.6**

Table 1.14 Prevalence of tuberculosis per 100000 populations, Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ajara	186.9	138.4	146.0	186.1	211.4	238.6	207.9	203.4	180.2	164.3	162.3
Tbilisi	147.0	153.4	174.6	171.8	173.0	160.8	145.7	152.3	164.5	138.9	123.3
Kakheti	123.7	122.9	137.8	109.2	104.4	103.9	85.1	97.3	70.0	77.4	71.1
Imereti	93.2	89.2	89.0	107.9	117.8	125.2	97.7	89.5	82.7	84.5	71.5
Samegrelo	165.9	143.7	170.1	150.0	170.8	185.6	163.5	176.6	129.7	141.8	116.9
Shida Kartli	127.8	111.5	115.3	125.8	125.5	103.2	127.2	109.8	90.4	96.1	89.2
Kvemo Kartli	87.3	88.0	113.8	100.1	119.0	123.6	100.6	114.5	102.6	106.9	88.3
Guria	154.7	160.1	171.7	122.4	129.0	153.5	130.1	109.4	102.3	105.5	99.9
Samtskhe-Javakheti	68.3	52.0	87.2	92.4	67.4	86.2	108.4	91.8	70.2	70.6	53.8
Mtskheta-Mtianeti	63.1	86.1	113.2	110.4	117.2	129.1	129.5	126.7	89.8	99.7	115.5
Racha-Lechkhumi and Kvemo Svaneti	63.4	141.7	64.7	100.8	115.8	76.5	51.2	39.3	41.8	54.5	37.9
Georgia	133.4	128.8	145.2	143.4	149.7	153.2	143.1	147.0	133.0	135.9	**130.4**

CHAPTER 2.

Demography*

Population

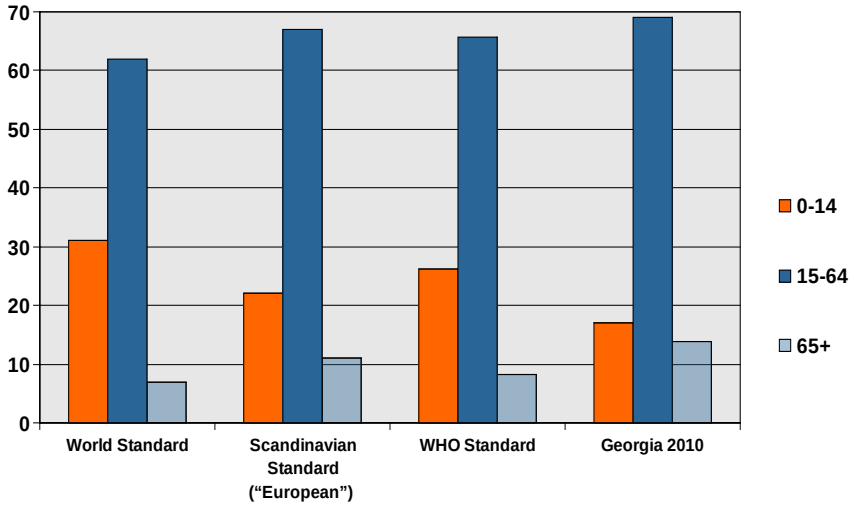
In 2010, the *mid-year population* number totaled to 4452800, which is 0.9 percent more compared to 2009. Last three years a trend of increase of the number of population was registered. This should be explained by the increase of the natural growth and positive external migration balance. In 2009, migration balance totaled to 34.2 thousand; in 2010 – 18.1 thousand.

Female population constituted 52.3% of total number; males - 47.7%. Child population aged under 15 amounted to 17.0%. Urban population totaled to 53.0%; rural - 47.0%.

In Georgia since 2007 there was an increase of the number of live births, which partially caused the growth of proportion of population aged 0-5 years. In 2010, the share of the population aged under-five increased by 0.3%.

Percentage of 65 year-old and older population was slightly decreased compared to the previous year (from 14.2% to 13.9%).

Figure 2.1 **Population distribution by the age groups (%)**



Birth rate

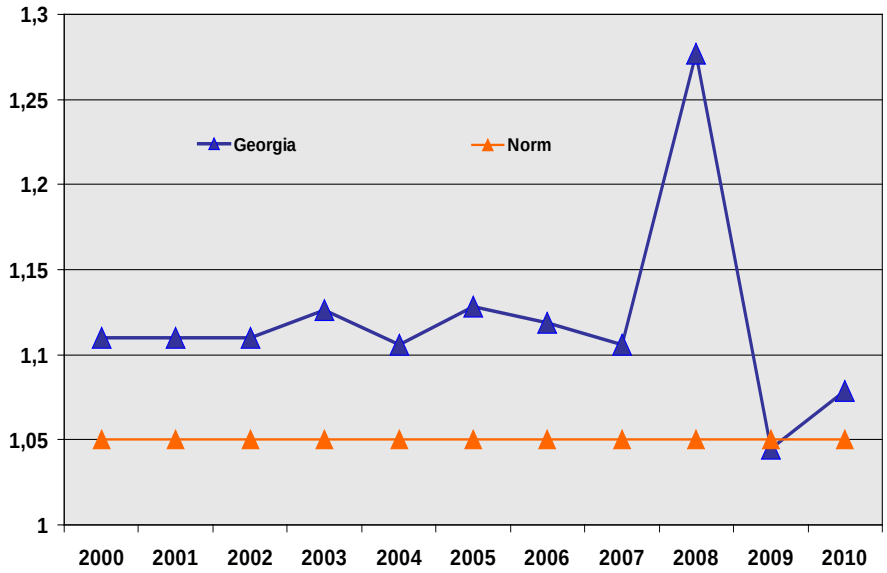
In 2010 there were 62585 ***live births registered***; birth rate slightly reduced compared to the year 2009.

Since 1994, slight deviation from the norm of the numerical determinant of the secondary sex ratio had been noted in Georgia, which was entailed by remarkable disruption of the proportion and in 2008 it reached 1.28. Since 2009 the secondary sex ratio has approached

* *This chapter includes data of National Statistics Office of Georgia (GeoStat)*

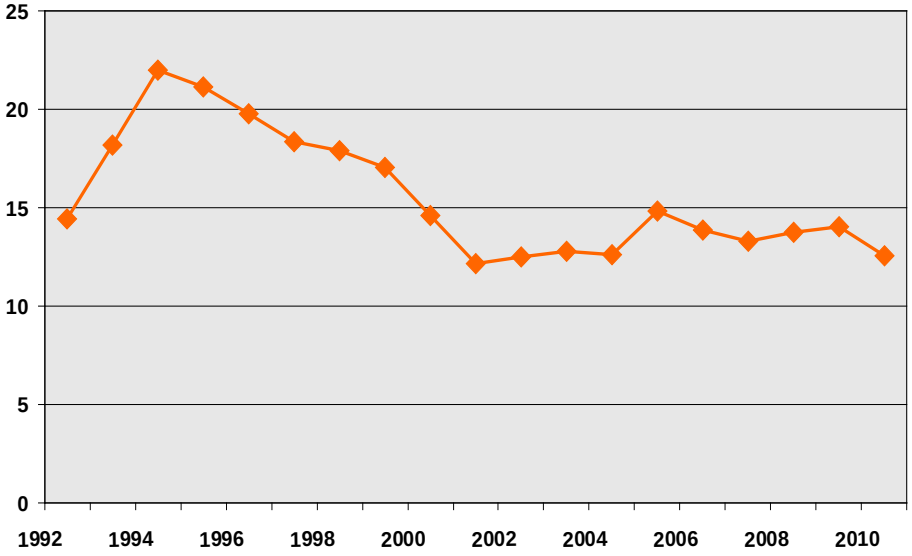
the norm, which can be indicative of normalized statistical accounting. According to the data of 2010 this ratio is slightly increased again (See Figure 2.2).

Figure 2.2 Secondary sex ratio, Georgia



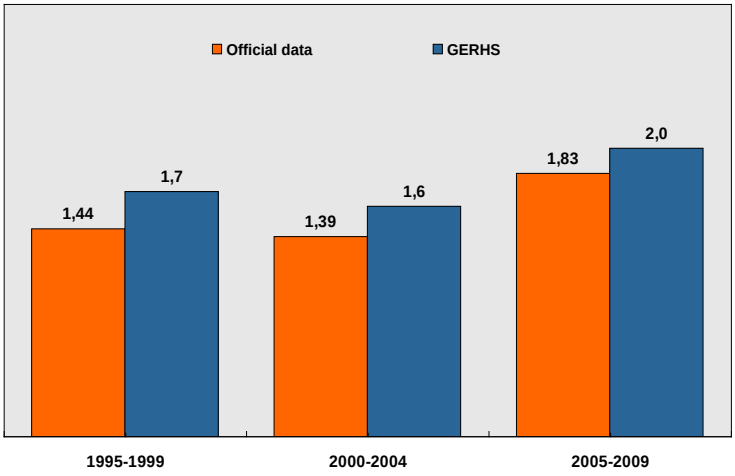
Since 1994 a decrease of proportion of liveborns delivered by mothers aged under 20 has been noted. During last years this indicator has been quite stable; in 2010, it totaled to 12.6% (See Figure 2.3).

Figure 2.3 Proportion of live births by women aged under 20 from all live births, Georgia, 1992 - 2010



Since 2005 after reaching the minimum of 1.39, the ***total fertility rate*** has been growing and totaled to 1.83 in 2010. Data of Reproductive Health Surveys conducted in Georgia somewhat differed from the official statistics, however, this difference was inclining (See Figure 2.4).

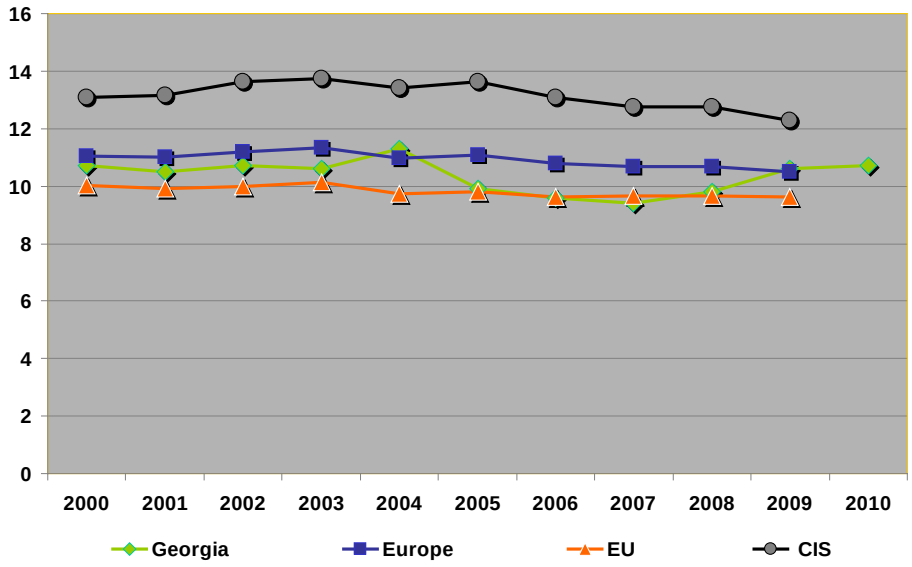
Figure 2.4 **Total fertility rate, official data and Georgian reproductive health surveys, Georgia**



Mortality

Improved mortality registration caused an increase of the registered number of deaths in Georgia. In 2010, compared to 2009, there was 2.7% growth and ***mortality rate*** totaled to 10.7. Among the deceased, there were 51.6% men and 48.4% women. Mortality rate in Georgia was less than in the CIS countries; however, it exceeded mortality rates in the European Region and the European Union (See Figure 2.5).

Figure 2.5 **Mortality rate per 100000 population, Georgia, the European region, the EU, the CIS**



Source: WHO HFADB

According to 2010 data, the three dominant classes of death consitutted of 'Symptoms, signs and abnormal clinical and laboratory findings' - 55%; 'Circulatory system diseases' - 30% and 'Neoplasms' – 6%. In 2010, there was registered the lowest ***infant mortality rate in*** the last 20 years. Compared to 2009, number of deaths in infants decreased by 25.8%.

Main causes of infant deaths were 'Certain conditions originating in the perinatal period' (73.3%), 'Symptoms, signs and abnormal clinical and laboratory findings' (14.8%), 'Diseases of the respiratory system' (5.1%), 'Congenital malformations" (2.4%).

Natural popultaion growth

Natural population growth (difference between birth and death rates) data are important for calculation of the mid-year population. In 2010, slight decrease of the number of births and increase of the number of deaths affected the natural growth. It decreased by 12.1% compared to 2009 and totaled 14721.

Basic demographic indicators, Georgia

	2009		2010	
	Total	Rate	Total	Rate
Number of live births and birth rate per 1000 population	63377	14.4	62585	14.1
Natural growth and rate per 1000 populations	16752	3.8	14721	3.3
Number of deaths and ,mortality rate per 1000 population	46625	10.6	47864	10.7
Infant deaths and infant mortality rate per 1000 live births	945	14.9	701	11.2
Stillbirths and rate per 1000 newborn	484	7.6	653	10.3
Marriage and rate per 1000 population	31752	7.2	34675	7.8
Divorces and rate per 1000 population	4030	0.9	4726	1.1
Migration dynamics and rate per 1000 populations	34200	7.8	18100	4.1

Life expectancy

In Georgia, in 2010, life expectancy at birth increased to 74.4 years (in women – 78.7; in men – 70.0).

Life expectancy at birth, Georgia

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total	71.3	71.6	71.5	72.1	71.6	74.0	74.3	75.1	74.2	73.6	74.4
Male	67.5	68.1	68.0	68.7	67.9	70.0	69.8	70.5	69.3	69.2	70.0
Female	75.0	74.9	74.9	75.3	75.1	77.6	78.6	79.4	79.0	77.7	78.7

According to the WHO data, life expectancy at birth for the CIS countries was 69.5 years, although, for the European Union countries this indicator reached 79.6 (See Figure 2.6).

Figure 2.6 Life expectancy at birth, Georgia, the European region, the EU, the CIS, 2009

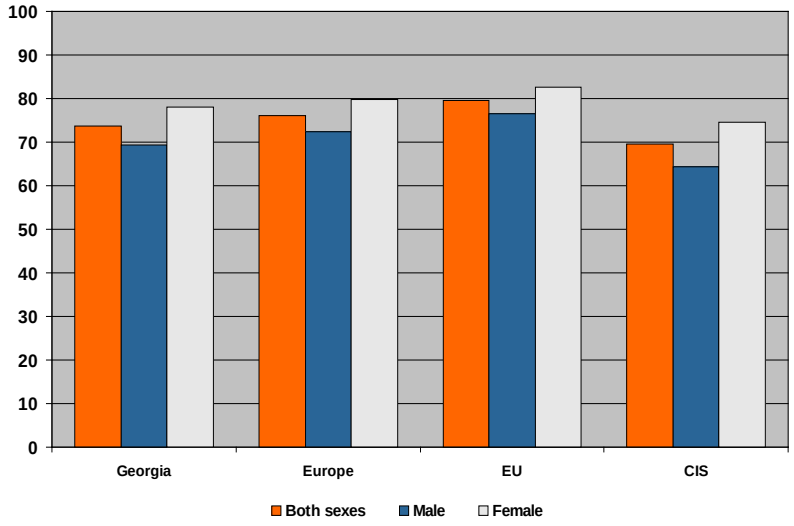


Table 2.1 Mid-year population by regions (in thousand), Georgia, 2009-2010

	2009			2010		
	Total	Including		Total	Including	
		Urban	Rural		Urban	Village
Ajara	384.6	168.9	215.7	388.7	170.6	218.1
Tbilisi	1145.4	1115.3	30.1	1157.5	1127.2	30.3
Kakheti	403.1	82.1	321.0	405.3	83.2	322.1
Imereti	697.1	329.5	367.6	702.4	334.0	368.4
Samegrelo	471.0	189.3	281.7	475.6	191.6	284.0
Shida Kartli	309.0	119.0	190.0	311.8	120.4	191.4
Kvemo Kartli	495.7	192.0	303.7	502.8	195.5	307.3
Guria	139.3	36.5	102.8	140.1	36.9	103.2
Samtskhe-Javakheti	209.7	64.9	144.8	212.0	65.8	146.2
Mtskheta-Mtianeti	108.3	26.1	82.2	109.1	26.6	82.5
Racha-Lechkhumi and Kvemo Svaneti	47.7	9.1	38.6	47.5	9.1	38.4
Georgia	**4410.9**	**2332.7**	**2078.2**	**4452.8**	**2360.9**	**2091.9**

Table 2.2 Mid-year population by age and sex groups (in thousand), Georgia, 2009-2010

	2009			2010		
Age	Both sexes	Males	Females	Both sexes	Males	Females
-1	59.0	31.5	27.5	62.2	32.0	30.2
1-4	193.0	102.8	90.2	205.2	109.6	95.6
5-9	229.1	120.8	108.3	229.2	120.9	108.3
10-14	271.8	141.9	129.9	261.4	137.0	124.4
15-19	348.3	177.3	171.0	331.8	169.6	162.2
20-24	362.2	183.2	179.0	366.0	185.3	180.7
25-29	338.0	169.6	168.4	347.4	174.8	172.6
30-34	315.0	154.9	160.1	320.5	158.2	162.3
35-39	303.1	146.7	156.4	308.8	150.5	158.3
40-44	296.4	139.9	156.5	295.8	140.4	155.4
45-49	336.0	155.9	180.1	332.8	154.3	178.5
50-54	296.5	136.5	160.0	308.3	142.5	165.8
55-59	255.4	115.7	139.7	261.0	118.5	142.5
60-64	180.9	80.7	100.2	203.1	90.4	112.7
65-69	166.8	68.2	98.6	142.9	58.4	84.5
70-74	196.1	78.6	117.5	203.7	81.0	122.7
75-79	129.3	49.8	79.5	127.9	49.5	78.4
80-84	90.2	31.1	59.1	94.4	33.3	61.1
85+	43.8	9.7	34.1	50.4	11.9	38.5
Total	**4410.9**	**2094.8**	**2316.1**	**4452.8**	**2118.1**	**2334.7**
-15	752.9	397.0	355.9	758.0	399.5	358.5
15-64	3031.8	1460.4	1571.4	3075.5	1484.5	1591.0
65+	626.2	237.4	388.8	619.3	234.1	385.2

Table 2.3 Total number of population by 01 January 2011 (in thousand), Georgia, 2009-2010

	Total	Including	
		Urban	Village
Ajara	390.6	171.3	219.3
Tbilisi	1162.4	1132.0	30.4
Kakheti	406.2	83.6	322.6
Imereti	704.5	335.6	368.9
Samegrelo	477.1	192.2	284.9
Shida Kartli	313.0	120.9	192.1
Kvemo Kartli	505.7	196.8	308.9
Guria	140.3	37.0	103.3
Samtskhe-Javakheti	212.8	66.1	146.7
Mtskheta-Mtianeti	109.3	26.7	82.6
Racha-Lechkhumi and Kvemo Svaneti	47.3	9.1	38.2
Georgia	**4469.2**	**2371.3**	**2097.9**

Table 2.4 Total number of population by 01 January 2011 (in thousand), and its percent distribution by age and sex groups, Georgia, 2009-2010

	Number of population (1000)			Percent distribution		
Age	**Both sexes**	**Males**	**Females**	**Both sexes**	**Males**	**Females**
-1	61.9	32.1	29.8	1.4	1.5	1.3
1-4	213.5	113.4	100.1	4.8	5.3	4.3
5-9	229.7	121.2	108.5	5.1	5.7	4.6
10-14	254.3	133.6	120.7	5.7	6.3	5.2
15-19	322.2	165.0	157.2	7.2	7.9	6.7
20-24	368.2	186.6	181.6	8.2	8.8	7.8
25-29	352.2	177.4	174.8	7.9	8.3	7.5
30-34	323.0	159.8	163.2	7.2	7.5	7.0
35-39	310.3	151.6	158.7	6.9	7.1	6.8
40-44	296.8	141.3	155.5	6.6	6.6	6.6
45-49	328.5	152.1	176.4	7.4	7.1	7.5
50-54	315.2	145.8	169.4	7.1	6.9	7.2
55-59	262.5	119.3	143.2	5.9	5.6	6.1
60-64	214.3	95.3	119.0	4.8	4.5	5.1
65-69	132.0	54.0	78.0	3.0	2.6	3.3
70-74	206.8	81.9	124.9	4.6	3.8	5.3
75-79	126.7	49.2	77.5	2.8	2.3	3.3
80-84	97.3	34.6	62.7	2.2	1.6	2.7
85+	53.8	13.1	40.7	1.2	0.6	1.7
Total	**4469.2**	**2127.3**	**2341.9**	**100.0**	**100.0**	**100.0**
-15	759.4	400.3	359.1	17.0	18.8	15.3
15-64	3093.2	1494.2	1599.0	69.2	70.2	68.3
65+	616.6	232.8	383.8	13.8	11.0	16.4

Table 2.5 Mid-year population by basic age and sex groups (thousand), Georgia, 2007-2010

Age	Both sexes	Males	Females
2007			
Total	**4388.4**	**2079.0**	**2309.4**
-15	767.2	400.8	366.4
15-64	2978.1	1430.9	1547.2
65+	643.1	247.3	395.8
2008			
Total	**4383.8**	**2079.6**	**2304.2**
-15	752.2	395.4	356.8
15-64	2994.8	1441.2	1553.6
65+	636.8	243.0	393.8
2009			
Total	**4410.9**	**2094.8**	**2316.1**
-15	752.9	397.0	355.9
15-64	3031.8	1460.4	1571.4
65+	626.2	237.4	388.8
2010			
Total	**4452.8**	**2118.1**	**2334.7**
-15	758.0	399.5	358.5
15-64	3075.5	1484.5	1591.0
65+	619.3	234.1	385.2

Table 2.6 Population natural movements, Georgia, 1995-2010

Year	Live births		Deaths		Natural growth		Marriage		Divorce	
	Number	LB rate per 1000 populations	Number	Mortality rate per 1000 populations	Number	Rate per 1000 populations	Number	Rate per 1000 populations	Number	Rate per 1000 populations
1995	56341	11.9	49073	10.4	7268	1.5	21481	4.5	2685	0.6
1996	55000	11.9	47961	10.4	7039	1.5	19253	4.2	2269	0.5
1997	54000	11.9	47575	10.5	6425	1.4	17099	3.8	2267	0.5
1998	51526	11.5	47321	10.5	4205	0.9	15343	3.4	1758	0.4
1999	48695	10.9	47184	10.6	1511	0.3	13845	3.1	1622	0.4
2000	48800	11.0	47410	10.7	1390	0.3	12870	2.9	1854	0.4
2001	47589	10.9	46218	10.5	1371	0.3	13336	3.0	1987	0.5
2002	46605	10.7	46446	10.7	159	0.0	12535	2.9	1836	0.4
2003	46194	10.7	46055	10.6	139	0.0	12696	2.9	1825	0.4
2004	49572	11.5	48793	11.3	779	0.2	14866	3.4	1793	0.4
2005	46512	10.7	42984	9.9	3528	0.8	18012	4.1	1928	0.4
2006	47795	10.9	42255	9.6	5540	1.3	21845	5.0	2060	0.5
2007	49287	11.2	41178	9.4	8109	1.8	24891	5.7	2325	0.5
2008	56565	12.9	43011	9.8	13554	3.1	31414	7.2	3189	0.7
2009	63377	14.4	46625	10.6	16752	3.8	31752	7.2	4030	0.9
2010	**62585**	**14.1**	**47864**	**10.7**	**14721**	**3.3**	**34675**	**7.8**	**4726**	**1.1**

Table 2.7 Age-specific fertility and population reproduction rates, Georgia, 1995-2010

Year	Total (15-49)	Age group							Total fertility rate	Reproduction rate	
		-20	20-24	25-29	30-34	35-39	40-44	45+		Gross	Net
1995	46.0	64.2	113.3	66.4	41.9	16.6	4.2	0.7	1.54	0.725	0.700
1996	45.8	59.7	112.8	69.5	44.1	18.2	4.0	0.8	1.55	0.732	0.708
1997	45.6	55.2	111.3	72.2	44.6	19.4	5.2	3.0	1.55	0.737	0.715
1998	43.8	51.4	109.1	71.6	42.3	18.9	4.6	3.0	1.50	0.713	0.694
1999	41.5	46.5	104.0	70.3	42.5	19.1	4.7	0.9	1.44	0.682	0.665
2000	41.7	39.9	110.1	74.4	43.3	19.2	4.9	0.9	1.46	0.694	0.675
2001	40.9	32.5	112.3	71.1	45.2	21.0	5.4	1.4	1.44	0.684	0.665
2002	40.2	32.8	108.6	63.5	50.2	21.2	6.4	1.5	1.42	0.673	0.653
2003	40.0	33.2	99.4	78.8	46.8	19.0	5.2	0.5	1.41	0.665	0.645
2004	42.8	35.1	109.3	83.3	47.2	21.1	5.4	1.0	1.51	0.718	0.695
2005	39.6	38.5	97.2	75.2	44.0	18.6	4.2	0.5	1.39	0.654	0.634
2006	40.2	36.7	100.7	76.0	43.3	18.9	4.6	0.7	1.40	0.663	0.648
2007	41.7	36.3	103.1	79.2	46.5	19.7	4.4	0.5	1.45	0.688	0.674
2008	50.2	42.4	115.4	90.1	55.0	24.2	5.7	0.5	1.67	0.732	0.713
2009	54.1	52.0	128.2	102.4	58.8	25.1	5.5	0.5	1.86	0.910	0.887
2010	**53.5**	**48.5**	**122.4**	**101.1**	**60.9**	**26.3**	**6.3**	**0.5**	**1.83**	**0.880**	**0.866**

Table 2.8 Number of live births by regions, Georgia, 2009-2010

	2009			2010		
	Total	Including		Including	Including	
		Urban	Urban		Urban	Village
Ajara	6322	3339	2983	6293	2571	3722
Tbilisi	16696	16376	320	16212	15833	379
Kakheti	5378	2703	2675	5348	1280	4068
Imereti	9776	6766	3010	10041	5041	5000
Samegrelo	6187	3826	2361	5969	2497	3472
Shida Kartli	4801	2922	1879	4900	1948	2952
Kvemo Kartli	7283	4209	3074	7230	2976	4254
Guria	2034	1070	964	1971	580	1391
Samtskhe-Javakheti	2912	1424	1488	2706	932	1774
Mtskheta-Mtianeti	1465	754	711	1425	348	1077
Racha-Lechkhumi and Kvemo Svaneti	523	274	249	490	123	367
Georgia	**63377**	**43663**	**19714**	**62585**	**34129**	**28456**

Table 2.9 Number of live births by the age of the mother, Georgia, 1995-2010

Year	Total	Mother's age							
		- 20	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45+	Unknown
1995	56341	11893	20578	12691	7474	2928	676	101	--
1996	55000	10862	19903	12715	7591	3153	649	127	--
1997	54000	9920	19223	12743	7465	3343	857	449	--
1998	51526	9212	18609	12287	6939	3256	768	455	--
1999	48695	8313	17552	11751	6861	3281	806	131	--
2000	48800	7124	18394	12100	6868	3305	868	141	--
2001	47589	5784	18571	11379	7073	3610	955	217	--
2002	46605	5833	17945	10077	7834	3541	1150	225	--
2003	46194	5907	16463	12449	7269	3040	929	81	56
2004	49572	6246	18258	13196	7316	3278	971	159	148
2005	46512	6903	16703	12110	6896	2870	752	87	191
2006	47795	6633	17666	12409	6831	2929	791	121	415
2007	49287	6549	18216	13021	7323	3058	727	79	314
2008	56565	7775	21025	14982	8392	3487	817	86	1
2009	63377	8896	22954	17250	9409	3920	864	84	--
2010	**62585**	**7870**	**22126**	**17458**	**9878**	**4171**	**974**	**85**	**23**

Table 2.10 Number of live births by sex and secondary sex ratio, Georgia, 1995-2010

Year	Both sexes	Male	Female	(Males /Females) * 100
1995	56341	29745	26596	111.8
1996	55000	28936	26064	111.0
1997	54000	28409	25591	111.0
1998	51526	27108	24418	111.0
1999	48695	25618	23077	111.0
2000	48800	25674	23126	111.0
2001	47589	25037	22552	111.0
2002	46605	24519	22086	111.0
2003	46194	24469	21725	112.6
2004	49572	26039	23533	110.6
2005	46512	24654	21858	112.8
2006	47795	25236	22559	111.9
2007	49287	25882	23405	110.6
2008	56565	31720	24845	127.7
2009	63377	32385	30992	104.5
2010	**62585**	**32488**	**30097**	**107.9**

Table 2.11 Number of live births by birth order, Georgia, 1995-2010

Year	Birth order					Total
	I	II	III	IV	V+	
1995	30012	18352	5642	1621	714	56341
1996	28380	18535	5830	1595	660	55000
1997	27432	18036	6102	1674	756	54000
1998	26227	17210	5925	1494	670	51526
1999	25225	16069	5405	1363	633	48695
2000	25327	16250	5270	1318	635	48800
2001	25460	15086	5187	1285	571	47589
2002	24952	14878	5060	1146	569	46605
2003	28875	11752	3929	1025	613	46194
2004	28100	15773	4207	1037	455	49572
2005	27356	13743	4043	942	428	46512
2006	28935	13371	4107	938	444	47795
2007	29883	14075	4077	830	422	49287
2008	31307	18147	5400	1184	527	56565
2009	33651	21093	6627	1412	594	63377
2010	**31062**	**22305**	**7097**	**1456**	**665**	**62585**

Table 2.12 Number of deaths and mortality rates by age and sex groups, Georgia, 2010

	Number of deaths			Mortality rates (per 1000 populations)		
Age	**Both sexes**	**Males**	**Females**	**Both sexes**	**Males**	**Females**
-1	701	406	295	11.2	12.7	9.8
1-4	96	59	37	0.5	0.5	0.4
5-9	60	38	22	0.3	0.3	0.2
10-14	71	41	30	0.3	0.3	0.2
15-19	157	116	41	0.5	0.7	0.3
20-24	288	244	44	0.8	1.3	0.2
25-29	351	296	55	1.0	1.7	0.3
30-34	416	331	85	1.3	2.1	0.5
35-39	622	477	145	2.0	3.2	0.9
40-44	906	685	221	3.1	4.9	1.4
45-49	1569	1169	400	4.7	7.6	2.2
50-54	2155	1563	592	7.0	11.0	3.6
55-59	2705	1872	833	10.4	15.8	5.8
60-64	3112	2018	1094	15.3	22.3	9.7
65-69	3442	2055	1387	24.1	35.2	16.4
70-74	7607	4136	3471	37.3	51.1	28.3
75-79	7789	3715	4074	60.9	75.1	52.0
80-84	8869	3552	5317	94.0	106.7	87.0
85+	6948	1908	5040	137.9	160.3	130.9
Total	**47864**	**24681**	**23183**	**10.7**	**11.7**	**9.9**

Table 2.13 Distribution of infant deaths by age at death and sex, Georgia, 2009-2010

	2009		2010	
	Males	**Females**	**Males**	**Females**
	546	**399**	**406**	**295**
0 day	176	134	78	60
1 day	54	35	44	35
2 days	35	23	30	16
3 days	28	15	29	5
4 days	22	10	10	8
5 days	19	10	17	14
6 days	13	7	9	11
7 - 27 days	90	78	81	59
28 days – 2 months	31	24	9	5
2 months	18	10	24	23
3 months	10	11	7	12
4 months	6	4	13	11
5 months	10	9	16	5
6 months	5	7	10	7
7 months	8	2	2	6
8 months	3	7	7	7
9 months	7	3	5	4
10 months	8	4	6	3
11 months	3	3	9	4

Table 2.14 Mortality rates by underlying causes (per 100000 populations), Georgia, 2008 - 2010

	2008		2009		2010	
	Number	Indicator	Number	Indicator	Number	Indicator
Total	**43011**	**981.1**	**46625**	**1057.0**	**47864**	**1074.9**
Certain infectious and parasitic diseases	368	8.4	328	7.4	207	4.6
Neoplasms	4661	106.3	5039	114.2	2853	64.1
Diseases of blood and blood-forming organs and certain disorders involving the immune mechanism	11	0.3	50	1.1	54	1.2
Endocrine, nutritional and metabolic diseases	630	14.4	562	12.7	475	10.7
Mental and behavioural disorders	40	0.9	50	1.1	29	0.7
Diseases of the nervous system	283	6.5	367	8.3	401	9.0
Diseases of the eye and adnexa	0	0.0	0	0.0	0	0.0
Diseases of the ear and mastoid process	0	0.0	0	0.0	0	0.0
Diseases of the circulatory system	27579	629.1	25725	583.2	14427	324.0
Diseases of the respiratory system	1237	28.2	766	17.4	542	12.2
Diseases of the digestive system	1260	28.7	1189	27.0	776	17.4
Diseases of the skin and subcutaneous tissue	0	0.0	0	0.0	0	0.0
Diseases of the musculoskeletal system and connective tissue	4	0.1	7	0.2	12	0.3
Diseases of the genitourinary system	322	7.3	317	7.2	152	3.4
Pregnancy, childbirth and the puerperium	1	0.0	32	0.7	13	0.3
Certain conditions originating in the perinatal period	783	17.9	787	17.8	516	11.6
Congenital malformations, deformations and chromosomal abnormalities	125	2.9	39	0.9	37	0.8
Symptoms, signs and abnormal clinical and laboratory findings	3669	83.7	9746	221.0	26332	591.4
External causes of mortality	2038	46.5	1621	36.7	1038	23.3

Table 2.15 Infant mortality by underlying causes (rate per 100000 children of the corresponding age and sex groups), Georgia, 2010

	Total		Male		Female	
	Number	Rate	Number	Rate	Number	I Rate
Total	**701**	**1127.0**	**406**	**1268.8**	**295**	**976.8**
Certain infectious and parasitic diseases	10	16.1	5	15.6	5	16.6
Neoplasms	0	0.0	0	0	0	0
Diseases of blood and blood-forming organs and certain disorders involving the immune mechanism	0	0.0	0	0	0	0
Endocrine, nutritional and metabolic diseases	0	0.0	0	0	0	0
Mental and behavioural disorders	0	0.0	0	0	0	0
Diseases of the nervous system	7	11.3	5	15.6	2	6.6
Diseases of the eye and adnexa	0	0.0	0	0	0	0
Diseases of the ear and mastoid process	0	0.0	0	0	0	0
Diseases of the circulatory system	8	12.9	7	21.9	1	3.3
Diseases of the respiratory system	36	57.9	17	53.1	19	62.9
Diseases of the digestive system	2	3.2	1	3.1	1	3.3
Diseases of the skin and subcutaneous tissue	0	0.0	0	0	0	0
Diseases of the musculoskeletal system and connective tissue	0	0.0	0	0	0	0
Diseases of the genitourinary system	0	0.0	0	0	0	0
Pregnancy, childbirth and the puerperium	0	0.0	0	0	0	0
Certain conditions originating in the perinatal period	516	829.6	307	959.3	209	692.0
Congenital malformations, deformations and chromosomal abnormalities	35	56.2	19	59.3	16	52.8
Symptoms, signs and abnormal clinical and laboratory findings	104	167.2	58	181.3	46	152.3
External causes of mortality	3	4.8	3	9.4	0	0

Table 2.16 Mortality in children under 15 by underlying causes (rate per 100000 children of the corresponding age and sex groups), Georgia, 2010

	Total		Male		Female	
	Number	Rate	Number	Rate	Number	I Rate
Total	**928**	**122.4**	**544**	**136.2**	**384**	**107.1**
Certain infectious and parasitic diseases	16	2.1	7	1.8	9	2.5
Neoplasms	12	1.6	7	1.8	5	1.4
Diseases of blood and blood-forming organs and certain disorders involving the immune mechanism	3	0.4	1	0.3	2	0.6
Endocrine, nutritional and metabolic diseases	0	0.0	0	0.0	0	0.0
Mental and behavioural disorders	0	0.0	0	0.0	0	0.0
Diseases of the nervous system	18	2.4	12	3.0	6	1.7
Diseases of the eye and adnexa	0	0.0	0	0.0	0	0.0
Diseases of the ear and mastoid process	0	0.0	0	0.0	0	0.0
Diseases of the circulatory system	36	4.7	22	5.5	14	3.9
Diseases of the respiratory system	41	5.4	20	5.0	21	5.9
Diseases of the digestive system	3	0.4	1	0.3	2	0.6
Diseases of the skin and subcutaneous tissue	0	0.0	0	0.0	0	0.0
Diseases of the musculoskeletal system and connective tissue	0	0.0	0	0.0	0	0.0
Diseases of the genitourinary system	0	0.0	0	0.0	0	0.0
Pregnancy, childbirth and the puerperium	0	0.0	0	0.0	0	0.0
Certain conditions originating in the perinatal period	516	68.0	307	76.8	209	58.3
Congenital malformations, deformations and chromosomal abnormalities	37	4.9	21	5.3	16	4.4
Symptoms, signs and abnormal clinical and laboratory findings	235	31.0	137	34.3	98	27.3
External causes of mortality	30	4.0	25	6.3	5	1.4

Table 2.17 Number of deaths by regions, Georgia, 2009-2010

	2009			2010		
	Total	Including		Total	Including	
		Urban	Rural		Urban	Rural
Ajara	2950	1728	1222	3217	1501	1716
Tbilisi	12397	12209	188	11645	11363	282
Kakheti	4972	1968	3004	5082	1098	3984
Imereti	8318	4596	3722	8726	3782	4944
Samegrelo	4976	2677	2299	5325	2391	2934
Shida Kartli	3575	1778	1797	3604	1399	2205
Kvemo Kartli	3896	2129	1767	4032	1715	2317
Guria	1610	614	996	1767	407	1360
Samtskhe-Javakheti	1884	1015	869	2184	739	1445
Mtskheta-Mtianeti	1280	594	686	1366	341	1025
Racha-Lechkhumi and Kvemo Svaneti	767	214	553	916	130	786
Georgia	**46625**	**29522**	**17103**	**47864**	**24866**	**22998**

Table 2.18 Population natural growth by regions, Georgia, 2009-2010

	2009			2010		
	Total	Including		Total	Including	
		Rural	Rural		Rural	Rural
Ajara	3372	1611	1761	3076	1070	2006
Tbilisi	4299	4167	132	4567	4470	97
Kakheti	406	735	-329	266	182	84
Imereti	1458	2170	-712	1315	1259	56
Samegrelo	1211	1149	62	644	106	538
Shida Kartli	1226	1144	82	1296	549	747
Kvemo Kartli	3387	2080	1307	3198	1261	1937
Guria	424	456	-32	204	173	31
Samtskhe-Javakheti	1028	409	619	522	193	329
Mtskheta-Mtianeti	185	160	25	59	7	52
Racha-Lechkhumi and Kvemo Svaneti	-244	60	-304	-426	-7	-419
Georgia	**16752**	**14141**	**2611**	**14721**	**9263**	**5458**

Table 2.19 Life expectancy at birth (in years), Georgia, 2000-2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total	71.3	71.6	71.5	72.1	71.6	74.0	74.3	75.1	74.2	73.6	74.4
Male	67.5	68.1	68.0	68.7	67.9	70.0	69.8	70.5	69.3	69.2	70.0
Female	75.0	74.9	74.9	75.3	75.1	77.6	78.6	79.4	79.0	77.7	78.7

Chapter 3.

Health care

Health workforce

In order to manage some important actions in healthcare sector properly and perform medical services related to Millennium Development Goals, it is enough to recruiting and retaining 2.3 health workers per 1000 population.

World Health Report, 2006, WHO

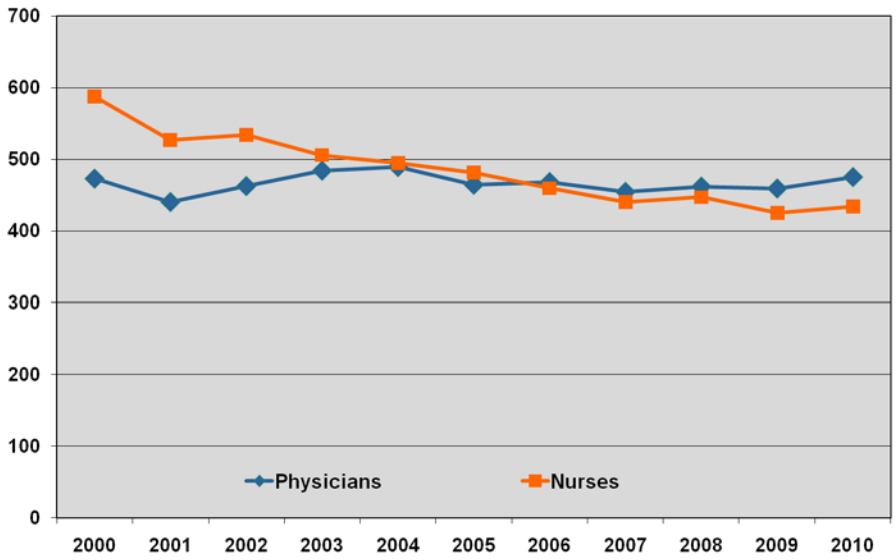
Clearly defined and well-thought health workforce policies represent significant tool for improving the indicators of health system activities.

Assessing financing, education, management and policy context for strategic planning for human resources in health, WHO, 2009

In 2010, according to collected reports, there were 21162 physicians serving the population of Georgia. Number of physicians per 100000 population was 475.3. In 2000-2007, number of physicians was declining. In period 2007-2010, this indicator was 440.1-475.3. According to data of 2009, in the European Region this indicator was 329.9; in the European Union - 330.5 ; and in the CIS - 377.6.

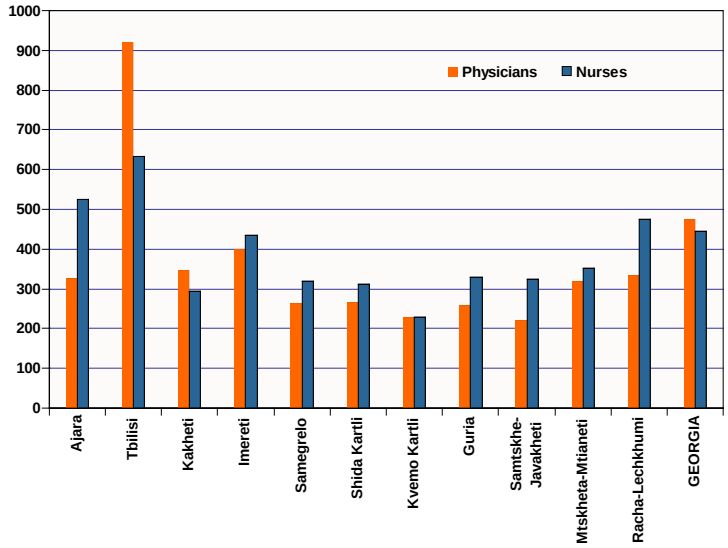
In 2010, in Georgia, numbers of nurses and auxiliary health stuff per 100000 population were 433.9 and 125.4, respectively. In 2009, according to the WHO data, the number of nurses in European region were 812.4, in European Union – 823.6, in CIS countries – 798.1 (See Figure 3.1).

Figure 3.1 **Number of physicians and nurses per 100 000 population, Georgia**



The number of medical personnel is not homogeneous according to the regions of Georgia. In Tbilisi, the number of physicians per 100000 population was 920.5; this 3-4 times exceeded the same indicator in all other regions (See Figure 3.2).

Figure 3.2 Number of physicians and nurses according to regions, indicator per 100000 population, Georgia, 2010



Ratio of nurses to physicians is a very significant indicator while providing medical service. This indicator has wide range worldwide. In the most of developed countries average value of nurses to physicians ratio is quite high; for example, in Norway - 4.4, in Canada - 4.7, in Danmark - 5.6, in the USA - about 4.0. The World Health Organization recommends the ratio of 4.0.

Last years, in Georgia, nurses to physicians ratio has been almost unchangeable in recent years and fluctuated around 1.0.

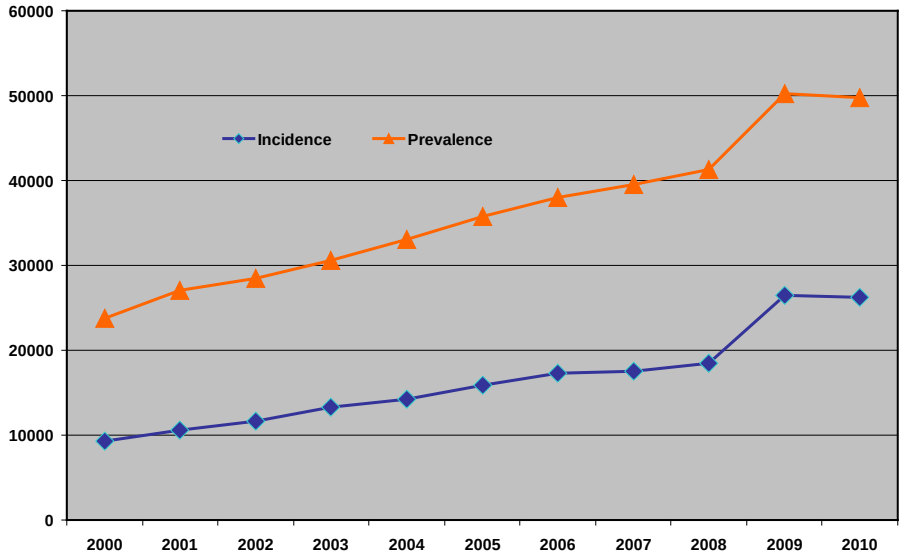
Outpatient network

In 2010, health reports were submitted by 271 independent and 85 aligned policlinics, 69 dispensaries, 42 treatment centres, 63 ambulatories, 25 independent and 140 aligned women consultancy centres and 1203 rural physician-entrepreneurs.

During the reporting year, there were 2215535 cases of diseases registered by outpatient facilities (general prevalence rate - 49956.0), including 1170137 new cases (general incidence rate - 26278.7) (See Figure 3.3).

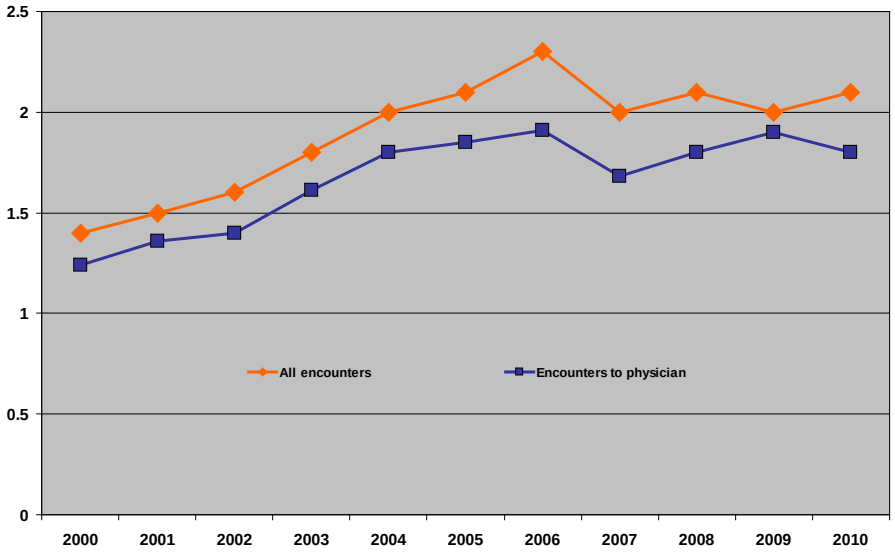
Number of outpatient encounters per capita was 2.1 (during 2003 – 2006, the indicator increased from 1.8 to 2.6; in the period of 2007 – 2010, it fluctuated between 2.0 and 2.1). This indicator is low, compared to the CIS and the European Region. In 2009, according to the WHO data, the average number of outpatient encounters per capita for the CIS countries was 8.6, for the European Region countries - 7.9.

Figure 3.3 General prevalence and incidence rates per 100000 population, Georgia



In 2010, the outpatient network occupancy rate was 35.3%. This indicator reduced, compared to previous years (in 2008 – 37.5%, in 2009 – 38.6%) (See Figure 3.4).

Figure 3.4 Number of outpatient encounters per capita, Georgia



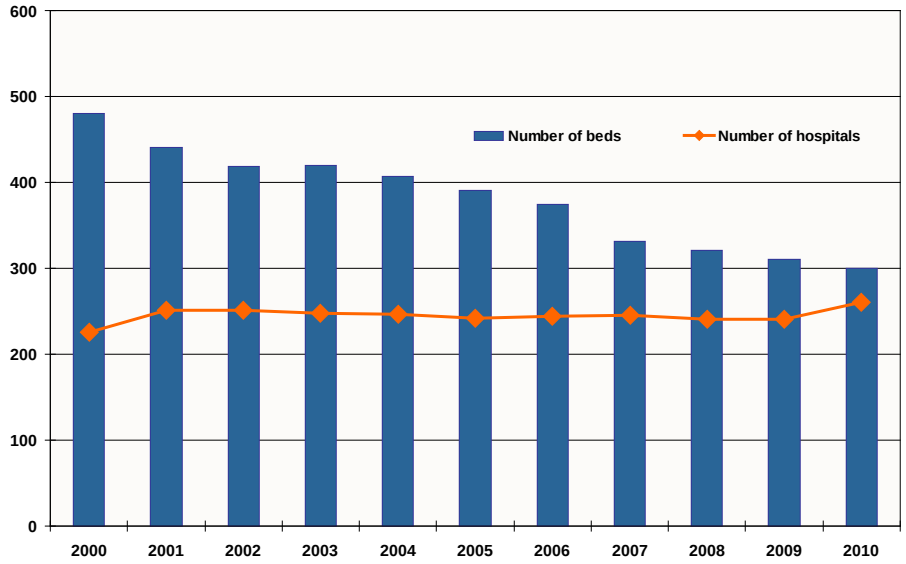
In outpatient facilities, there were performed 377 734 surgical operations, including on skin and subcutaneous tissues - 11979, obstetric-gynecologic operations -10580 and on organs of vision - 7365.

In 2010, 78 ambulance and 39 blood preparation stations provided assistance to the population of Georgia. The ambulance stations served 1074277 physical persons, including 1063399 in the frame of state program.

Inpatient network

In 2010, according to data from 276 inpatient facilities, in Georgia, there were 13378 hospital beds (bed provision rate per 100000 population – 300.4). This number included 255 hospitals - 11919 beds, 7 dispensaries - 142 beds, and 14 scientific research institutes - 1317 beds. According to WHO data of 2009, bed supply rate for European Region was 649.1, for European Union – 528.9 and for CIS countries – 832.9 (See Figure 3.5).

Figure 3.5 Number of hospital beds per 100000 population, Georgia



Last years hospitalization ***rate*** has been growing in Georgia. In 2010, 335 373 patients were admitted to hospitals, and hospitalization rate was 7.5 per 100 populations. This rate is almost 2.5 times less, compared to the CIS (20.8) and the European Region countries (18.5).

During the reporting year, compared to the previous year, the average bed occupancy rate increased from 148.2 to 160.0; bed turnover rate increased from 23.4 to 25.2.

Average length of stay has not changed significantly since the previous year. In 2009, according to the WHO data, average bed occupancy rate in Georgia was 36.1%, in the European Region countries – 77.6%, in the CIS countries – 84.7%.

Pediatric, psychiatric and tuberculosis beds had high occupancy rates. Greater average length of stay was typical for psychiatric, tuberculosis and radiation oncology hospitals.

In 2010, there were 335697 patients discharged from the hospitals, among them 6581 died. Case fatality rate was 2.0%. High case fatality rate was specific for conditions developed in the perinatal period (7.6%), diseases of the circulatory system (6.3%), and diseases of the nervous system (5.3%).

In 2010, in inpatient facilities, there were 134941 surgical operations performed (rate per 1000 population – 30.3; postoperative case fatality rate – 0.4%); including 14539 operations performed in children under 15 (rate per 1000 children – 19.2; lethality rate – 0.4%).

In 2009, according to the WHO data, the number of surgical procedures per 1000 population in the CIS countries was 49.4, in the European Union – 92.8.

Percentage of urgent operations among all operations performed declined by 2.5%, compared to the previous year.

The three top in the structure of inpatient operations were as follows: genitourinaryoperations – 42.0%; operations on abdominal cavity organs – 15.2%; operations on musculoskeletal system – 7.9%.

One-third (33.2%) of all musculoskeletal system operations consisted of replacements of hip and knee joints. Number of replacements of hip joint increased 1.5-times, compared to 2008, and replacements of knee joint – 2.3-times.

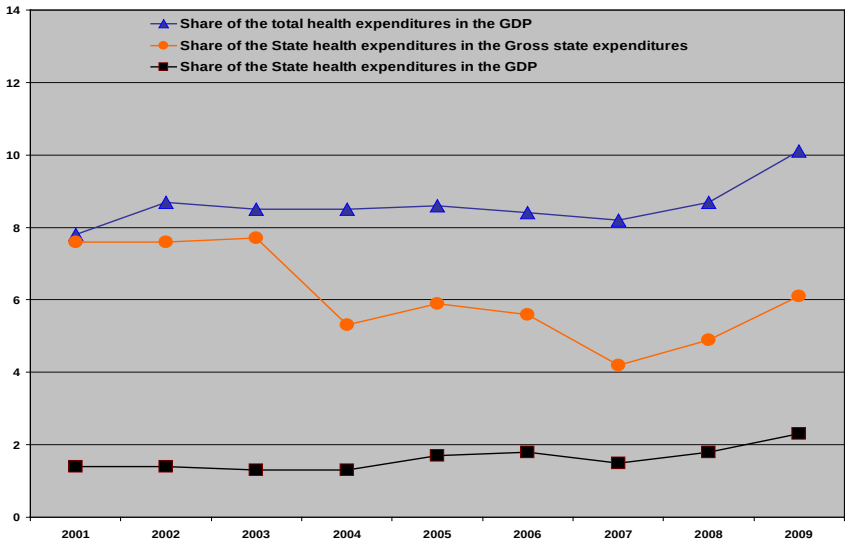
In 2010, compared to 2008, number of heart operations increased by 10.3% in the total population and decreased by 18.5% in children. In 2010, 39.5% of all heart operations were open heart. None of open heart surgeries was entailed by death. 10.7% of heart surgeries was performed due to congenital heart defects, 15.8% - endovascular balloon dilatation, 11.4% - implantation of cardiostimulator. 85.8% of all heart surgeries was performed in Tbilisi, 13.9% - in Imereti.

Health Expenditures

In 2009, according to the National health report, the share of total health expenditures in the Gross Domestic Product increased by 1.4% and totaled to 10.1%.

Compared to year 2008, percentage of state health expenditures of GDP increased to become 2.3%. Percentage of the state health expenditures in the gross state expenditures increased to 6.1%, and the share of the state health expenditures in the total health expenditures increased up to 23% (in 2008 it was 20.6%) (See Figure 3.6).

Figure 3.6 Health Expenditures, Georgia



Private expenditures make up to 71.2% of the overall health care funding. In the period of 2001-2009, the total health expenditures per capita increased from 115 lari to 412 lari, the state health expenditures increased from 17 lari to 95 lari, and private expenditures increased from 88 lari to 261 lari.

Table 3.1 Health workforce, Georgia, 2010

	Physicians, physical person	Number of physicians per 100000 population	Nurses, physical person	Number of nurses per 100000 population	Auxiliary staff, physical person	Number of auxiliary staff per 100000 population
Abkhazia	235	-	155	-	9	-
Ajara	1268	326.2	2045	526.1	573	147.4
Tbilisi	10655	920.5	7322	632.6	2149	185.7
Kakheti	1406	346.9	1196	295.1	297	73.3
Imereti	2802	398.9	3060	435.6	1094	155.8
Samegrelo	1252	263.2	1514	318.3	332	69.8
Shida Kartli	828	265.6	970	311.1	267	85.6
Kvemo Kartli	1146	227.9	1151	228.9	352	70.0
Guria	364	259.8	461	329.1	112	79.9
Samtskhe-Javakheti	471	222.2	686	323.6	225	106.1
Mtskheta-Mtianeti	348	319.0	385	352.9	76	69.7
Racha-Lechkhumi	159	334.7	226	475.8	35	73.7
Other Facilities	228	-	150	-	62	-
Georgia	**21162**	**475.3**	**19321**	**433.9**	**5583**	**125.4**

Table 3.2 Health workforce, Georgia, 2006-2010

	2006	2007	2008	2009	2010
Physicians (physical person)	**20597**	**19951**	**20253**	**20609**	**21162**
Including					
Therapeutists	1969	1875	1885	1403	1263
Surgeons (including pediatric surgeons)	935	906	972	1034	1082
Anaesthesiologists-Reanimatologists	878	895	850	942	941
Traumatologists - Orthopedists	273	263	276	301	299
Cardiologists	594	603	623	705	702
Urologists	231	223	231	235	239
Oncologists	233	249	255	181	217
Paediatricians	1674	1978	1907	1653	1594
Infectionists	255	255	258	237	242
Otolaryngologists	292	307	326	327	359
Neurologists	613	593	634	610	615
Ophthalmologists	354	354	350	364	405
Stomatologists	1242	1198	1197	1115	1236
Obstetricians-Gynecologists	1407	1370	1417	1444	1505
Phthisiologists	138	143	145	153	154
Dermato-Venerologists	241	214	240	206	245
Psychiatrists	235	221	215	239	235
Endocrinologists	286	299	307	319	344
General Practitioners*	169	233	459	1386	1537
Physician-specialists of public healthcare	190	299	301	378	455
Other specialties	8388	7521	7404	7367	7493

Table 3.3 Nurses and auxiliary medical staff, Georgia, 2007-2010

	2007		2008		2009		2010	
	Total number	**Number per 100000 population**	**Total number**	**Number per 100000 population**	**Total number**	**Number per 100000 population**	**Total number**	**Number per 100000 population**
Nursing personnel	**19315**	**440.1**	**19593**	**446.9**	**18627**	**424.9**	**19321**	**433.9**
Nurses	13583	309.5	13207	301.3	12933	292.8	13314	299.0
Fully-trained nurses	1194	27.2	1719	39.2	1325	29.9	1570	35.3
Midwives	854	19.5	919	21.0	732	16.5	736	16.5
Fully-trained nurses-midwives	317	7.2	270	6.2	260	6.3	248	5.6
Rural nurses	-	-	-	-	1136	25.6	1301	29.2
Others	3367	76.7	3478	79.3	3377	76.6	2325	52.2
Auxiliary personnel	**5669**	**129.2**	**5834**	**133.1**	**5915**	**134.1**	**5583**	**125.4**

* *Since 2009, Including rural physician-entrepreneurs*

Table 3.4 Healthcare network, according to the collecteded reports, Georgia, 2010

Type of facility	Number of facilities
Inpatient facilities	276
Dispensaries	67
Including dispensaries with beds	7
Independent:	
Outpatient facilities	261
Including Stomatological policlinics	84
Women consultancy centers	25
Ambulance stations	75
Rural medical ambulatories	58
Blood transfusion stations	6
Nurseries for Infants	2
Scientific research institutes	14
Health centres	39
Rural physician-entrepreneur	1203
Aligned:	
Policlinics aligned to hospitals	85
Doctor health posts	15
Rural medical ambulatories	22
Nurse–midwife health posts	118
Ambulance stations	3

Table 3.5 Outpatient facilities of the healthcare system, Georgia, 2010

	Policlinics	Dispensaries	Health centres	Women consultancy centers	Independent medical ambulatories
Abkhazia	10	1	0	1	1
Ajara	18	8	1	1	0
Tbilisi	99	11	25	13	6
Kakheti	25	7	2	0	5
Imereti	39	14	3	4	8
Samegrelo	17	5	3	2	4
Shida Kartli	11	5	0	2	2
Kvemo Kartli	12	6	3	1	17
Guria	5	5	2	0	0
Samtskhe-Javakheti	12	5	0	1	0
Mtskheta-Mtianeti	3	0	0	0	15
Racha-Lechkhumi	3	0	0	0	0
Other Facilities	1	0	0	0	0
Georgia	**261**	**67**	**39**	**25**	**58**

Table 3.6 Registered disease cases, prevalence and structure by classes, Georgia, 2010

	Number of registered cases	Prevalence	%
Total	**2215535**	**49756.0**	**100**
Certain infectious and parasitic diseases	82822	1860.0	3.7
Neoplasms	53428	1199.9	2.4
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	23535	3773.2	1.1
Endocrine, nutritionsl and metabolic diseases	168015	528.5	7.6
Mental and behavioral disorders	91664	2058.6	4.1
Diseases of the nervous system	125619	2821.1	5.7
Diseases of the eye and adnexa	124576	2797.7	5.6
Diseases of the ear and mastoid process	41059	922.1	1.9
Diseases of the circulatory system	420837	9451.1	19.0
Diseases of the respiratory system	494194	11098.5	22.3
Diseases of the digestive system	261977	5883.4	11.8
Diseases of the skin and subcutaneous tissue	49136	1103.5	2.2
Diseases of the musculoskeletal system and connective tissue	78722	1767.9	3.6
Diseases of the genitourinary system	121634	2731.6	5.5
Pregnancy, childbirth and puerperal period*	10341	883.8	0.5
Certain conditions originating in the perinatal period**	2509	4033.8	0.1
Congenital malformations, deformations and chromosomal abnormalities	8959	201.2	0.4
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	7986	179.3	0.4
Injury, poisoning and certain other consequesnces of external causes	48522	1089.7	2.2

Table 3.7 New cases of diseases, incidence and structure by classes, Georgia, 2010

	Number of new cases	Incidence	%
Total	**1170137**	**26278.7**	**100**
Certain infectious and parasitic diseases	71642	1608.9	6.1
Neoplasms	11685	262.4	1.0
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	17378	390.3	1.5
Endocrine, nutritionsl and metabolic diseases	43545	977.9	3.7
Mental and behavioral disorders	3984	89.5	0.3
Diseases of the nervous system	47742	1072.2	4.1
Diseases of the eye and adnexa	49531	1112.4	4.2
Diseases of the ear and mastoid process	27902	626.6	2.4
Diseases of the circulatory system	98193	2205.2	8.4
Diseases of the respiratory system	439289	9865.5	37.5
Diseases of the digestive system	151848	3410.2	13.0
Diseases of the skin and subcutaneous tissue	38305	860.2	3.3
Diseases of the musculoskeletal system and connective tissue	30935	694.7	2.6
Diseases of the genitourinary system	71952	1615.9	6.1
Pregnancy, childbirth and puerperal period*	7166	612.5	0.6
Certain conditions originating in the perinatal period**	2198	3533.8	0.2
Congenital malformations, deformations and chromosomal abnormalities	2443	54.9	0.2
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	7097	159.4	0.6
Injury, poisoning and certain other consequesnces of external causes	47302	1062.3	4.0

* *Indicators are calculated for women of the reproductive age*

** *Indicators are calculated for infants (0-1 year)*

Table 3.8 Registered disease cases in children aged 0-15 years, prevalence and structure by classes, Georgia, 2010

	Number of registered cases	Prevalence	%
Total	**463204**	**61229.9**	**100**
Certain infectious and parasitic diseases	41156	5440.3	8.9
Neoplasms	310	41.0	0.1
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	11977	1583.2	2.6
Endocrine, nutritionsl and metabolic diseases	14667	1938.8	3.2
Mental and behavioral disorders	1926	254.6	0.4
Diseases of the nervous system	26896	3555.3	5.8
Diseases of the eye and adnexa	17695	2339.1	3.8
Diseases of the ear and mastoid process	12559	1660.1	2.7
Diseases of the circulatory system	5796	766.2	1.3
Diseases of the respiratory system	256897	33958.6	55.5
Diseases of the digestive system	23718	3135.2	5.1
Diseases of the skin and subcutaneous tissue	16180	2138.8	3.5
Diseases of the musculoskeletal system and connective tissue	5017	663.2	1.1
Diseases of the genitourinary system	7193	950.8	1.6
Pregnancy, childbirth and puerperal period*	3	1.1	0.001
Certain conditions originating in the perinatal period**	2509	4033.8	0.5
Congenital malformations, deformations and chromosomal abnormalities	7547	997.6	1.6
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	3797	501.9	0.8
Injury, poisoning and certain other consequesnces of external causes	7361	973.0	1.6

Table 3.9 New cases of diseases in children aged 0-15 years, incidence and structure by classes, Georgia, 2010

	Number of new cases	Incidence	%
Total	**387079**	**51167.1**	**100**
Certain infectious and parasitic diseases	39265	5190.4	10.1
Neoplasms	124	16.4	0.0
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	10072	1331.4	2.6
Endocrine, nutritionsl and metabolic diseases	6416	848.1	1.7
Mental and behavioral disorders	357	47.2	0.1
Diseases of the nervous system	11406	1507.7	2.9
Diseases of the eye and adnexa	9679	1279.4	2.5
Diseases of the ear and mastoid process	10622	1404.1	2.7
Diseases of the circulatory system	1103	145.8	0.3
Diseases of the respiratory system	244385	32304.7	63.1
Diseases of the digestive system	17296	2286.3	4.5
Diseases of the skin and subcutaneous tissue	13993	1849.7	3.6
Diseases of the musculoskeletal system and connective tissue	1922	254.1	0.5
Diseases of the genitourinary system	5582	737.9	1.4
Pregnancy, childbirth and puerperal period *	2	0.8	0.001
Certain conditions originating in the perinatal period **	2198	3533.8	0.6
Congenital malformations, deformations and chromosomal abnormalities	1932	255.4	0.5
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	3439	454.6	0.9
Injury, poisoning and certain other consequesnces of external causes	7286	963.1	1.9

* *Indicators are calculated for women of the reproductive age*

** *Indicators are calculated for infants (0-1 year)*

Table 3.10 Diseases registered by rural physicians, prevalence and structure by classes, Georgia, 2010

	Number of registered cases	Prevalence per 100000 rural populations	%
Total	**593076**	**28351.1**	**100**
Certain infectious and parasitic diseases	28252	1350.5	4.8
Neoplasms	3797	181.5	0.6
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	11048	528.1	1.9
Endocrine, nutritionsl and metabolic diseases	31058	1484.7	5.2
Mental and behavioral disorders	315	15.1	0.1
Diseases of the nervous system	18789	898.2	3.2
Diseases of the eye and adnexa	14234	680.4	2.4
Diseases of the ear and mastoid process	9845	470.6	1.7
Diseases of the circulatory system	136959	6547.1	23.1
Diseases of the respiratory system	193728	9260.9	32.7
Diseases of the digestive system	57305	2739.4	9.7
Diseases of the skin and subcutaneous tissue	10763	514.5	1.8
Diseases of the musculoskeletal system and connective tissue	24342	1163.6	4.1
Diseases of the genitourinary system	30953	1479.7	5.2
Pregnancy, childbirth and puerperal period	1791		0.0
Certain conditions originating in the perinatal period	389		0.1
Congenital malformations, deformations and chromosomal abnormalities	687	32.8	0.1
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	2551	121.9	0.4
Injury, poisoning and certain other consequesnces of external causes	16270	777.8	2.7

Table 3.11 New cases of diseases registered by rural physicians, incidence and structure by classes, Georgia, 2010

	Number of new cases	Incidence per 100000 rural populations	%
Total	**360623**	**17239.0**	**100**
Certain infectious and parasitic diseases	26933	1287.5	7.5
Neoplasms	864	41.3	0.2
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	8415	402.3	2.3
Endocrine, nutritionsl and metabolic diseases	10732	513.0	3.0
Mental and behavioral disorders	43	2.1	0.0
Diseases of the nervous system	7402	353.8	2.1
Diseases of the eye and adnexa	6173	295.1	1.7
Diseases of the ear and mastoid process	7097	339.3	2.0
Diseases of the circulatory system	37305	1783.3	10.3
Diseases of the respiratory system	176514	8438.0	48.9
Diseases of the digestive system	25849	1235.7	7.2
Diseases of the skin and subcutaneous tissue	8155	389.8	2.3
Diseases of the musculoskeletal system and connective tissue	9330	446.0	2.6
Diseases of the genitourinary system	15282	730.5	4.2
Pregnancy, childbirth and puerperal period	1425		0.4
Certain conditions originating in the perinatal period	363		0.1
Congenital malformations, deformations and chromosomal abnormalities	294	14.1	0.1
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	2365	113.1	0.7
Injury, poisoning and certain other consequesnces of external causes	16082	768.8	4.5

Table 3.12 Morbidity rates by regions, Georgia, 2010

	Number of registered cases	Prevalence per 100000 populations	Number of new cases	Incidence per 100000 populations
Ajara	181505	46695.4	93923	24163.4
Tbilisi	718016	62031.6	322903	27896.6
Kakheti	186866	46105.6	97431	24039.2
Imereti	353218	50287.3	196118	27921.1
Samegrelo	166832	35078.2	83413	17538.5
Shida Kartli	153308	49168.7	93441	29968.2
Kvemo Kartli	116154	23101.4	67951	13514.5
Guria	50506	36050.0	32535	23222.7
Samtskhe-Javakheti	74742	35255.7	48179	22725.9
Mtskheta-Mtianeti	58966	54047.7	36755	33689.3
Racha-Lechkhumi and Kvemo Svaneti	25688	54080.0	12379	26061.1
Georgia	**2215535**	**49756.0**	**1170137**	**26278.7**

Table 3.13 Encounters with rural physicians, Georgia, 2010

	Total number of encounters	Indicator per capita in rural areas
Ajara	165527	0.76
Tbilisi	22795	0.75
Kakheti	259361	0.81
Imereti	302463	0.82
Samegrelo	165884	0.58
Shida Kartli	169381	0.88
Kvemo Kartli	94163	0.31
Guria	100742	0.98
Samtskhe-Javakheti	89392	0.61
Mtskheta-Mtianeti	55914	0.68
Racha-Lechkhumi and Kvemo Svaneti	20964	0.55
Georgia	**1446586**	**0.69**

Table 3.14 Number of medical tests performed by rural physicians by regions, Georgia, 2010

	Otoscopy	Ophthalmoscopy	Sphygmomanometry	Electrocardiography	Glucose measurement in peripheral blood
Ajara	5006	2654	66788	4066	3814
Kakheti	3474	2108	128733	3674	3386
Imereti	8595	5969	144966	6824	9668
Samegrelo	4554	9069	68123	2598	4655
Shida Kartli	5528	3754	68590	3737	10564
Kvemo Kartli	2768	2458	28470	3081	3717
Guria	1755	471	39470	954	1646
Samtskhe-Javakheti	964	496	28872	2319	2337
Mtskheta-Mtianeti	2735	2512	13022	458	2104
Racha-Lechkhumi and Kvemo Svaneti	117	115	8271	658	542
Georgia	**35496**	**29606**	**595305**	**28369**	**42433**

Table 3.15 Number of encounters with health facilities per capita, Georgia, 2004-2010

	2004	2005	2006	2007	2008	2009	2010
All encounters	**2.0**	**2.1**	**2.3**	**2.0**	**2.1**	**2.0**	**2.1**
Encounters with physicians (all age groups)	**1.8**	**1.8**	**1.9**	**1.7**	**1.8**	**1.9**	**1.8**
In children aged under 15	1.6	1.6	3.3	3.0	2.8	2.9	2.5
Home visits (all age groups)	**0.1**	**0.1**	**0.2**	**0.1**	**0.1**	**0.1**	**0.1**
To children aged under 15	0.3	0.2	0.3	0.2	0.2	0.2	0.2
Ambulance calls	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
To children aged under 15	0.003	0.04	0.08	0.08	0.07	0.10	0.10

Table 3.16 Outpatient facilities occupancy, Georgia, 2004-2010

	2004	2005	2006	2007	2008	2009	2010
All encounters	**8549147**	**8718622**	**9256759**	**8016113**	**8519856**	**7889951**	**8412988**
Among them							
Encounters with physicians	7890279	8069045	8403132	7350753	7875066	7418789	7943256
Including to stomatological policlinics	306359	330360	321438	388946	344999	345057	319928
Home visits	505862	475390	681940	500610	470241	424169	384026
To nurse–midwife health posts	153006	174187	171687	164750	174549	23122	59999
To emergency departments	-	-	-	-	-	23871	25707
Scheduled workload (potential number of patient visits per 1 shift per day)	94319	92061	87977	84819	87385	87405	87461
Real number of visits per shift	32881	33533	35603	30789	32769	33738	30881
Occupancy rate of outpatient network (%)	34,9	36,4	40,5	36,3	37,5	38,6	35,3

Table 3.17 Screening of children and adolescents-students, Georgia, 2010

	Total number of screened children	During screenings revealed				
		Hearing impairment %	Visual impairment %	Speech defect %	Scoliosis %	Fault in posture %
All children aged under 15 and adolescents - students aged 15-18	**730305**	**0.2**	**0.8**	**0.4**	**0.9**	**0.5**
Including						
Children aged under 15	596540	0.2	0. 8	0.4	0.8	0.5
0-1 year-olds	72682	0.1	0.2	0.1	0.04	0.03
1-5 year-olds	177707	0.1	0.5	0.5	0.4	0.3
5-6 year-olds	51905	0.4	2.4	1.5	1.8	1.5
15 year-olds	50876	0.3	1.2	0.5	2.3	1.3
At high school graduation (16-18 year-olds)	82889	0.3	0.6	0.2	1.0	0.6
Including males	40944	0.2	0.3	0.1	0.5	0.4

Table 3.18 Screening of recruits, Georgia, 2007-2010

	2007	2008	2009	2010
Number of recruits screened during the reporting year	19420	29040	23731	21836
Are under the follow-up by the end of the reporting year	3091	4020	3673	4111

Table 3.19 Day care departments, Georgia, 2009-2010

	2009		2010	
	In inpatient facilities	In outpatient facilities	In inpatient facilities	In outpatient facilities
Day care hospital departments	16	3	16	4
Number of beds	249	18	189	15
Number of patients treated in day care hospitals	7475	252	6356	192

Table 3.20 Number of outpatient surgeries, Georgia, 2005-2010

	2005	2006	2007	2008	2009	2010
Total number of surgical operations	**27525**	**25058**	**37456**	**27426**	**34398**	**37734**
Including						
On eye	1916	2831	3949	5214	6751	7365
Among them microsurgery	951	1455	2431	2212	3162	5123
Due to: glaucoma	323	329	415	450	730	318
cataract	946	1725	2624	3297	4123	4370
On throat-ear-nose	349	524	576	973	1240	1684
Among them on ear	85	12	5	27	20	60
On blood vessels	5	37	9	79	46	121
On organs of abdominal cavity	30	30	38	317	431	415
Among them dissection of non-strangulated hernia	8	22	20	139	120	130
Obstetrical & gynecological	6009	6405	7439	7219	9098	10580
On breast (mammary glands)	361	164	296	317	1058	214
On skin and subcutaneous tissues	14358	10647	6250	8960	9070	11979

Table 3.21 Number of encounters with stomatological policlinics (units), Georgia, 2005-2010

	2005	2006	2007	2008	2009	2010
All encounters	**330360**	**321438**	**388946**	**344999**	**345057**	**319928**
Including						
Children aged under 15	69355	65408	58405	54393	38322	30360
Adolescents aged 15-18	24936	24285	23761	24742	23358	17743
Number of all primary encounters	**160033**	**141763**	**175978**	**170387**	**170017**	**164198**
Including						
Children aged under 15	35069	30079	28981	26112	20398	17274
Adolescents aged 15-18	13866	12956	13313	12010	10563	9712

Table 3.22 Stomatological network, personnel and encounters according to collected reports, Georgia, 2007-2010

	2007	2008	2009	2010
Independent stomatological policlinic	109	70	84	84
Stomatological room	354	439	353	367
Number of encounters – all ages	388946	344999	345057	319928
Including in children	58405	54393	38322	30360
Number of encounters per capita	0.09	0.08	0.07	0.07
Number of encounters per child	0,08	0.07	0.05	0.04
Number of stomatologists	1198	1197	1115	1236
Nursing staff (dental technicians)	191	217	195	181

Table 3.23 Ambulance stations performance, Georgia, 2004-2010

	2004	2005	2006	2007	2008	2009	2010
Number of ambulance stations	**83**	**81**	**90**	**78**	**77**	**81**	**78**
Independent	31	72	72	75	73	77	75
Aligned	52	9	18	3	4	4	3
Number of visits	**218188**	**453422**	**683003**	**750156**	**774192**	**907343**	**1097086**
Number of persons who received assistance according to the state program	164218	427264	669764	713373	754818	864502	1063399

Table 3.24 Number of physical persons who received ambulance assistance, Georgia, 1988-2010

	Total number of persons served	Including					
		Due to accidents		Due to unexpected illness		Due to childbirth and pregnancy pathologies	
		Total number	%	Total number	%	Total number	%
1988	1309352	62373	4.8	1111850	84.9	26897	2.1
1990	1268859	53629	4.2	1107048	87.2	23583	1.9
1995	156920	7774	5.0	144533	92.1	1317	0.8
2000	150645	7982	5.3	138383	91.9	1366	0.9
2001	135539	7618	5.6	124233	91.7	1126	0.8
2002	162376	8421	5.2	147701	91.0	1243	0.8
2003	192641	10166	5.3	172589	89.6	2104	1.1
2004	218188	19560	8.9	191379	87.7	3137	1.4
2005	453422	38594	8.5	393183	86.7	5246	1.2
2006	683003	49068	6.4	599335	87.8	6584	1.0
2007	726779	15930	2.2	644912	88.7	3319	0.5
2008	768167	10912	1.4	751945	97.9	5310	0.7
2009	883129	14579	1.6	863589	97.8	4961	0.6
2010	**1074277**	**13286**	**1.2**	**1055719**	**98.3**	**5272**	**0.5**

Table 3.25 Number of physical persons who received ambulance assistance by regions, Georgia, 2006-2010

	2006	2007	2008	2009	2010
Ajara	70542	69033	67924	80974	80762
Tbilisi	259426	277818	320354	351836	377066
Kakheti	53010	58960	59469	65206	70184
Imereti	94157	93190	94154	108081	111606
Samegrelo	38761	50470	49342	76625	222459
Shida Kartli	35205	38138	40851	45177	47313
Kvemo Kartli	52041	56755	59314	65481	66413
Guria	23157	22636	24182	27515	26869
Samtskhe-Javakheti	23411	29191	25657	28717	29992
Mtskheta-Mtianeti	20172	17395	17282	21735	25982
Racha-Lechkhumi and Kvemo Svaneti	13121	13193	9638	11782	15631
Georgia	**683003**	**726779**	**768167**	**883129**	**1074277**

Table 3.26 Number of disabled and impaired persons registered in the network of outpatient facilities, Georgia, 2010

	Number of disabled
Number of all registered persons at the beginning of the reporting year	74145
Including: children aged 0-15 years	5582
Disabled war veterans	2680
Number of new cases	8346
Number of persons taken from the register during the reporting year	7311
Including due to death	2015
Number of persons registered by the end of the reporting year	75180

Table 3.27 Distribution of registered disabled persons according to groups of disability, Georgia, 2010

	Total number	**Including disabled war veterans**
Number of persons registered by the end of the reporting year	**75180**	**2182**
Groups of disability	***Including:***	
I - severe	8229	298
II - significant	35185	1536
III - moderate	7066	348

Table 3.28 Inpatient health network (according to collected reports), Georgia, 2010

	Total		**Including**					
			Hospitals		**Dispensaries**		**Scientific Research Institutes**	
	Number of facilities	**Number of beds**	**Number of facilities**	**Number of beds**	**Number of facilities**	**Number of beds**	**Number of facilities**	**Number of beds**
Abkhazia	0	0	0	0	0	0	0	0
Ajara	20	1076	18	1039	2	37	0	0
Tbilisi	103	5746	88	4416	1	13	14	1317
Kakheti	22	643	22	643	0	0	0	0
Imereti	40	2264	38	2209	2	55	0	0
Samegrelo	26	895	25	883	1	12	0	0
Shida Kartli	11	571	11	571	0	0	0	0
Kvemo Kartli	25	839	25	839	0	0	0	0
Guria	7	273	6	248	1	25	0	0
Samtskhe-Javakheti	12	552	12	552	0	0	0	0
Mtskheta-Mtianeti	5	128	5	128	0	0	0	0
Racha-Lechkhumi	4	215	4	215	0	0	0	0
Other Facilities	1	176	1	176	0	0	0	0
Georgia	**276**	**13378**	**255**	**11919**	**7**	**142**	**14**	**1317**

Table 3.29 Hospital beds utilization, Georgia, 2010

	Number of bed per 100000 populations	Bed occupancy rate	Average length of stay	Bed turnover
Ajara	276.8	175.0	6.0	29.2
Tbilisi	496.4	169.9	6.4	26.7
Kakheti	158.6	114.9	4.2	27.4
Imereti	322.3	194.1	8.1	24.1
Samegrelo	188.2	139.5	5.6	25.1
Shida Kartli	183.1	142.7	5.6	25.6
Kvemo Kartli	166.9	122.4	5.7	21.3
Guria	194.9	96.6	5.0	19.5
Samtskhe-Javakheti	260.4	135.7	7.2	18.8
Mtskheta-Mtianeti	117.3	77.3	3.2	23.8
Racha-Lechkhumi	452.6	69.8	6.7	10.5
Other Facilities	--	159.6	7.9	20.2
Georgia	**300.4**	**160.0**	**6.4**	**25.2**

Table 3.30 Hospital beds utilization by profile, Georgia, 2010

Bed profile	Number of beds	Bed occupancy rate (days)	Average length of stay	Bed turnover
Therapeutic	1875	124.1	4.6	28.0
Pediatric	1317	202.4	6.0	34.6
Surgical	3254	104.5	4.4	23.7
Oncological and radiological	500	198.1	12.9	15.3
Infectious	782	105.1	5.2	20.2
Tuberculosis	536	264.7	51.5	5.2
Obstetrical and gynecological	2539	139.8	4.0	34.8
Neurological	289	164.9	7.0	23.9
Psychiatric and narcological	1361	339.1	84.0	4.0
Otolaryngological	223	51.9	1.3	40.5
Ophthalmological	133	78.5	2.6	30.1

Table 3.31 Hospitalization by regions, Georgia, 2009-2010

	2009		2010	
	Number of hospital admitions	Hospitalization rates per 100000 populations	Number of hospital admitions	Hospitalization rates per 100000 populations
Ajara	29139	7576.4	31073	7994.1
Tbilisi	148413	12957.3	152293	13157.1
Kakheti	17260	4281.8	17713	4370.3
Imereti	48758	6994.4	54662	7782.2
Samegrelo	21028	4464.5	22471	4724.8
Shida Kartli	13992	4528.2	14804	4747.9
Kvemo Kartli	16947	3418.8	17829	3545.9
Guria	5166	3708.5	5318	3795.9
Samtskhe-Javakheti	8207	3913.7	10338	4876.4
Mtskheta-Mtianeti	3466	3200.4	3040	2786.4
Racha-Lechkhumi	2039	4274.6	2243	4722.1
Other Facilities	4289	--	3589	--
Georgia	**318872**	**7225.4**	**335373**	**7531.7**

Table 3.32 Hospitals discharges and hospital deaths, Georgia, 2010

	Number of hospital discharges	Including hospital deaths
Total	**335697**	**6581**
Including		
Certain infectious and parasitic diseases	20467	201
Neoplasms	14447	354
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	1002	16
Endocrine, nutritionsl and metabolic diseases	3449	55
Mental and behavioral disorders	5534	56
Diseases of the nervous system	6468	346
Diseases of the eye and adnexa	5631	0
Diseases of the ear and mastoid process	1289	0
Diseases of the circulatory system	43907	2747
Diseases of the respiratory system	62446	629
Diseases of the digestive system	34613	587
Diseases of the skin and subcutaneous tissue	3415	2
Diseases of the musculoskeletal system and connective tissue	5551	6
Diseases of the genitourinary system	13160	111
Pregnancy, childbirth and puerperal period	79844	2
Certain conditions originating in the perinatal period	6824	519
Congenital malformations, deformations and chromosomal abnormalities	2122	69
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	2925	338
Injury, poisoning and certain other consequesnces of external causes	22603	543

Table 3.33 Hospitals discharges and hospital deaths in children under 15, Georgia, 2010

	Hospital discharges		Including infants	
	Total number	Of which number of deaths	Total number	Of which number of deaths
Total	**77107**	**808**	**25927**	**716**
Including:				
Certain infectious and parasitic diseases	12956	52	3912	44
Neoplasms	1003	11	292	0
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	314	1	95	0
Endocrine, nutritionsl and metabolic diseases	338	0	14	0
Mental and behavioral disorders	331	0	2	0
Diseases of the nervous system	1680	12	571	2
Diseases of the eye and adnexa	252	0	4	0
Diseases of the ear and mastoid process	282	0	20	0
Diseases of the circulatory system	330	8	7	0
Diseases of the respiratory system	40963	84	12958	63
Diseases of the digestive system	4002	4	426	3
Diseases of the skin and subcutaneous tissue	674	0	172	0
Diseases of the musculoskeletal system and connective tissue	555	0	21	0
Diseases of the genitourinary system	994	2	96	2
Pregnancy, childbirth and puerperal period	48	0	-	-
Certain conditions originating in the perinatal period	6824	519	6305	519
Congenital malformations, deformations and chromosomal abnormalities	1586	66	599	61
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	1356	30	290	15
Injury, poisoning and certain other consequesnces of external causes	2619	19	143	7

Table 3.34 Hospital case fatality rate, Georgia, 2010

	Total number	Including	
		In children under 15	In infants
Total	**2.0**	**1.0**	**2.7**
Including:			
Certain infectious and parasitic diseases	1.0	0.4	1.1
Neoplasms	2.5	1.1	0
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	1.6	0.3	0
Endocrine, nutritionsl and metabolic diseases	1.6	0	0
Mental and behavioral disorders	1.0	0	0
Diseases of the nervous system	5.3	0.7	0.3
Diseases of the eye and adnexa	0	0	0
Diseases of the ear and mastoid process	0	0	0
Diseases of the circulatory system	6.3	2.4	0
Diseases of the respiratory system	1.0	0.2	0.5
Diseases of the digestive system	1.7	0.1	0.7
Diseases of the skin and subcutaneous tissue	0.1	0	0
Diseases of the musculoskeletal system and connective tissue	0.1	0	0
Diseases of the genitourinary system	0.8	0.2	2.0
Pregnancy, childbirth and puerperal period	0	0	-
Certain conditions originating in the perinatal period	7.6	7.6	7.6
Congenital malformations, deformations and chromosomal abnormalities	3.3	4.2	9.2
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	11.6	2.2	4.9
Injury, poisoning and certain other consequesnces of external causes	2.4	0.7	4.7

Table 3.35 Surgical operations, Georgia, 2000-2010

	Total number of operations			Among them in children		
	Total	Rate per 1000 population	Case fatality rate (%)	Total	Rate per 1000 children	Case fatality rate (%)
2000	69360	15.6	0.8	9262	9.8	07
2001	75905	17.2	0.7	10415	11.3	0.6
2002	77657	17.8	0.7	10463	11.7	0.3
2003	82626	19.1	0.7	10970	13.0	0.5
2004	90790	20.8	0.7	10945	11.9	0.4
2005	98695	22.6	0.7	11655	12.7	0.5
2006	100303	22.8	0.6	11194	14.1	0.4
2007	100438	22.9	0.5	11722	15.3	0.2
2008	121189	27.6	0.5	13943	18.5	0.6
2009	123900	28.1	0.5	11361	15.1	0.5
2010	**134941**	**30.3**	**0.4**	**14539**	**19.2**	**0.4**

Table 3.36 Surgical operations performed under general anesthesia and mortality rate, Georgia, 2000-2010

	Total number of surgical operations under general anesthesia	Percentage from the total number	Case fatality rate due to general anesthesia (%)
2000	32213	46.4	0.02
2001	34173	45.0	0.02
2002	35261	45.4	0.03
2003	39386	47.7	0.03
2004	43030	47.4	0.03
2005	54499	55.2	0.01
2006	54771	54.6	0.01
2007	57004	56.7	0.01
2008	71725	59.2	0.01
2009	73376	59.2	0.02
2010	**82334**	**61.0**	**0.004**

Table 3.37 Surgical operations, Georgia, 2009-2010

	2009		2010	
	Number of inpatient operations	Case fatality rate (%)	Number of inpatient operations	Case fatality rate (%)
All operations	**123900**	**0.5**	**134941**	**0.4**
Operations on organs of the nervous system	3450	2.7	3387	2.5
Operations on organs of the endocrine system	1070	0.1	1212	0
Operations on the eye	5124	0	5723	0
Operations on the ear and nose	3895	0	5454	0
Operations on the respiratory organs	1035	1.7	1162	1.4
Operations on heart	1373	3.5	1382	4.3
Operations on blood vessels	3957	0.5	4649	0.3
Operations on organs of the digestive tract and abdominal cavity	26334	1.2	27503	1.2
Operations on kidneys and ureters	2421	0.4	2311	0.5
Operations on prostate	1275	0.4	1441	0.4
Operations on female pelvic organs	9722	0.1	9861	0.03
Obstetric and gynecological operations	35535	0.01	38262	0
Operations on the musculoskeletal system	9323	0.3	10648	0.4
Operations on mammary glands (breast)	1896	0	1918	0
Operations on the skin and subcutaneous tissue	5262	0	6083	0.1

Table 3.38 Surgical operations in children, Georgia, 2010

	Number of inpatient operations	Number of post operation deaths	Case fatality rate %
All operations	**14539**	**63**	**0.4**
Including:			
Operations on organs of the nervous system	212	6	2.8
Operations on respiratory organs	97	0	0
Operations on heart	247	28	11.3
Operations on organs of the digestive tract and abdominal cavity	3603	28	0.8
Operations on the musculoskeletal system	770	0	0

Table 3.39 Surgical operations, Georgia, 2010

	Number of inpatient operations		Number of post operation deaths	Case fatality rate %
	All ages	Including in children		
All operations	**134941**	**14539**	**587**	**0.4**
Operations on organs of nervous system	**3387**	**212**	**86**	**2.5**
Including on brain	1013	187	43	4.2
spinal cord	66	15	1	1.5
brain tunics	107	4	1	0.9
peripherous nervous system	109	0	1	0.9
Intervertebral discs	1960	0	0	0
Operations on organs of endocrine system	**1212**	**3**	**0**	**0**
Including on hypophysis	20	0	0	0
thyroid gland	898	0	0	0
parathyroidectomia	7	0	0	0
adrenalectomia	12	0	0	0
Operations on eye	**5723**	**371**	**0**	**0**
Including due to glaucoma	588	29	0	0
enucleation	213	2	0	0
due to cataract	3405	27	0	0
Operations on ear, nose	**5454**	**2352**	**0**	**0**
Including on ear	427	37	0	0
adenoidectomia	3366	2194	0	0
Operations on tonsils	**7986**	**4952**	**1**	**0.01**
Operations on respiratory organs	**1162**	**97**	**16**	**1.4**
Including pulmonectomia	83	0	5	6.0
pulmonary lobe resection	110	15	1	0.9
segmental resection of lung	106	1	0	0
on larynx	331	13	4	1.2
resection of trachea	41	1	0	0
bronchial resection	0	0	0	0
pleural resection	4	1	0	0
Heart operations	**1382**	**247**	**60**	**4.3**
Including open heart	546	199	0	0
due to congenital heart defects	148	42	28	18.9
endovascular balloon dilatation	218	0	0	0
cardiostimulator implantation	157	0	0	0
pericardectomia	8	0	0	0
Operations on blood vessels	**4649**	**55**	**13**	**0.3**
Operations on organs of the digestive tract and abdominal cavity	**27503**	**3603**	**335**	**1.2**
Operations on kidneys and ureters	**2311**	**86**	**11**	**0.5**
Including kidney transplantation	8	0	0	0
Operations on the prostate gland	**1441**	**3**	**6**	**0.4**
Operations on female pelvic organs	**9861**	**14**	**3**	**0.03**
Obstetrical and gynecological operations	**38262**	**2**	**0**	**0**
Including due to ectopic pregnancy	1082	0	0	0
Operations on the musculoskeletal system	**10648**	**770**	**39**	**0.4**
Including bone transplantation	93	8	0	0
replacement of hip joint	3035	170	4	0,1
replacement of knee joint	505	4	0	0
amputation of extremity or its part	948	6	17	1.8
Including: amputation of extremity or its part due to diabetes	470	0	3	0.6
Operations on mammary glands (breast)	**1918**	**1**	**0**	**0**
Operations on skin and subcutaneous tissue	**6083**	**871**	**5**	**0.1**

Table 3.40 Surgical operations and post operation case fatality rate by regions, Georgia, 2009-2010

	2009		2010	
	Number of operations	Case fatality rate %	Number of operations	Case fatality rate %
Ajara	12614	0.5	13745	0.4
Tbilisi	61610	0.6	67932	0.5
Kakheti	5292	0.3	5600	0.1
Imereti	19945	0.4	21461	0.3
Samegrelo	6289	0.2	6847	0.6
Shida Kartli	4666	0.1	5037	0.1
Kvemo Kartli	5588	0.2	6729	0.2
Guria	1625	0.1	1828	0.3
Samtskhe-Javakheti	2596	0.2	2561	0.1
Mtskheta-Mtianeti	1305	0.5	1022	0.4
Racha-Lechkhumi	242	1.2	226	1.8
Other Facilities	2128	0.3	1953	0.2
Georgia	**123900**	**0.5**	**134941**	**0.4**

Table 3.41 Urgent surgical operations, Georgia, 2000-2010

	Number of urgent operations	Percentage from the total number	Case fatality rate, %
2000	13982	20.2	1.4
2001	13372	17.6	1.1
2002	13610	17.5	1.4
2003	16498	20.0	1.3
2004	17541	19.3	1.4
2005	18414	18.6	1.4
2006	20146	20.1	1.2
2007	20369	20.3	1.4
2008	23022	19.0	1.1
2009	21818	17.6	1.3
2010	**20385**	**15.1**	**1.1**

Table 3.42 Urgent surgical operations, Georgia, 2010

	Total number of deaths	Number of post operation deaths	Case fatality rate, %
Urgent surgical aid	**20385**	**217**	**1.1**
Including			
Due to acute ileus	1290	62	4.8
Due to acute appendicitis	7890	1	0.01
Due to gastric and duodenal perforation	477	30	6.3
Due to bleeding in the digestive tract	164	12	0.7
Due to strangulated hernia	3732	11	0.3
Due to acute cholecystitis	1788	9	0.5
Due to acute pancreatitis	118	8	6.8
Due to ectopic pregnancy	1082	0	0
Splenectomia	129	7	5.4
Other operations on abdominal cavity organs	1579	59	3.7
Lung resection	7	0	0
Nephrectomia	210	3	1.4
Orchiectomy	131	0	0
Ovaryectomy	272	0	0
Other operations on the genitourinary system	748	0	0
Amputation of extremity or its part	768	15	1.9

Table 3.43 Structure of urgent surgical operations, Georgia, 2009-2010

	2009		2010	
	Total	%	Total	%
Urgent surgical aid	**21818**	**100**	**20385**	**100**
Including				
Due to acute appendicitis	8281	38.0	7890	38.7
Due to gastric and duodenal perforation	487	2.2	477	2.3
Due to acute cholecystitis	1925	8.8	1788	8.8
Due to acute ileus	1072	4.9	1290	6.3
Due to bleeding in the digestive tract	173	0.8	164	0.8
Due to strangulated hernia	3548	16.3	3732	18.3
Due to acute pancreatitis	115	0.5	118	0.6
Due to ectopic pregnancy	1219	5.6	1082	5.3
Splenectomia	161	0.7	129	0.6
Other operations on organs of abdominal cavity	2126	9.7	1579	7.7
Lung resection	87	0.4	7	0.03
Nephrectomia	278	1.3	210	1.0
Orchiectomy	292	1.3	131	0.6
Ovaryectomy	414	1.9	272	1.3
Other operations on the genitourinary system	927	4.2	748	3.7
Amputation of extremity or its part	713	3.3	768	3.8

Table 3.44 Number of urgent surgical operations and interval between the symptom onset and hospital admission, Georgia, 2010

	Hospital admissions			Including			
	Total number	Including delays (more than 24 hours)		Without operation	Case fatality rate (%)	Operated	Case fatality rate (%)
		Number	%				
Acute ileus	1525	382	25.0	235	3.0	1290	4.8
Acute appendicitis	7998	1210	15.1	108	0	7890	0.01
Gastric and duodenal ulcer perforation	490	49	10.0	13	23.0	477	6.3
Bleeding in the digestive tract	1132	368	32.5	968	1.6	164	7.3
Strangulated hernia	3795	290	7.6	63	0	3732	0.3
Acute cholecystitis	2018	476	23.6	230	0	1788	0.5
Acute pancreatitis	311	104	33.4	193	2.1	118	6.8
Ectopic pregnancy	1082	37	3.4	0	0	1082	0
Splenectomia	132	2	1.5	3	33.3	129	5.4
Other operations on organs of abdominal cavity	1692	93	5.5	113	2.6	1579	3.7
Lung resection	11	0	0	4	0	7	0
Nephrectomia	211	8	3.8	1	0	210	1.4
Orchiectomy	149	18	12.1	18	0	131	0
Ovaryectomy	272	20	7.3	0	0	272	0
Other operations on genitourinary system	767	42	5.5	19	0	748	0
Amputation of extremity or its part	782	120	15.3	14	0	768	0

Table 3.45 Operations on organs of the digestive tract and abdominal cavity, Georgia, 1996-2010

	Total number	Case fatality rate %	Including			
			Urgent operations		Other operations	
			Number	Case fatality rate, %	Number	Case fatality rate, %
1996	14899	1.8	10618	1.3	4281	3.0
1997	16967	1.9	11982	1.8	4985	2.1
1998	18266	1.9	12755	1.6	5511	2.6
1999	18948	1.8	13478	1.4	5470	2.6
2000	18055	1.7	12991	1.5	5064	2.3
2001	18367	1.6	12385	1.1	5982	2.4
2002	19979	1.4	12711	1.4	7268	1.4
2003	19647	1.4	13346	1.1	6301	1.9
2004	24419	1.4	14029	1.2	10390	1.6
2005	23434	1.4	14680	1.1	8754	2.0
2006	24617	1.2	17873	1.2	6744	1.2
2007	24592	1.1	18038	1.2	6554	1.0
2008	28614	0.9	19559	1.2	9055	0.5
2009	26334	1.2	17888	1.4	8446	0.8
2010	**27503**	**1.2**	**17167**	**1.1**	**10336**	**1.3**

Table 3.46 Surgical beds, utilization rates, Georgia, 1996-2010

	Number of beds	Bed occupancy rate (days)	Average length of stay	Bed turnover
1996	5210	85.5	10.1	8.6
1997	5509	84.2	9.7	8.8
1998	5387	95.3	10.0	9.6
1999	5395	89.8	9.2	9.9
2000	5022	74.7	8.2	9.1
2001	4787	75.8	7.6	10.0
2002	4518	82.0	7.6	10.9
2003	4516	79.4	7.1	11.3
2004	4441	83.2	6.8	12.4
2005	4256	83.5	6.2	13.7
2006	3990	90.1	5.7	15.9
2007	3584	113.9	5.9	19.3
2008	3453	125.1	5.5	23.1
2009	3475	108.8	4.9	22.2
2010	**3254**	**104.5**	**4.4**	**23.7**

Table 3.47 Surgical paediatric beds, utilization rates, Georgia, 1996-2010

	Number of beds	Bed occupancy rate (days)	Average length of stay	Bed turnover
1996	666	79.1	9.3	8.7
1997	630	73.4	9.0	8.3
1998	655	78.7	8.7	9.2
1999	563	82.8	8.5	9.8
2000	588	70.7	7.5	9.6
2001	522	82.9	7.8	1.8
2002	513	78.5	7.6	10.5
2003	529	11.4	7.3	15.7
2004	549	116.7	6.0	19.6
2005	537	125.0	4.6	27.4
2006	460	134.2	7.3	18.3
2007	372	208.7	8.9	23.1
2008	389	153.8	6.2	24.6
2009	244	89.8	3.9	23.3
2010	**219**	**110.1**	**3.5**	**31.3**

Table 3.48 Timely vaccinations, Georgia, 2010

Vaccine	Vaccination age according to the vaccination calendar	Number of vaccinated children
BCG-1 (timely)	0 – 5 days	58444
BCG-1	0 - 1 year	59565
DPT-1-Hib-HeBs 1	2 months – 11 months 29 days	58403
DPT-1-Hib-HeBs 2	3 months – 11 months 29 days	55524
DPT-1-Hib-HeBs 3	4 months – 11 months 29 days	52848
DPT-4	18 – 24 months	43560
Polio-1	2 months – 11 months 29 days	54997
Polio-2	3 months – 11 months 29 days	52738
Polio-3	4 months – 11 months 29 days	50739
Polio-4	18 - 24 months	42690
Polio-5	5 years - 5 years 11 months 29 days	37050
Viral hepatitis B–1 (timely)	0 - 24 hours	56204
Viral hepatitis B - 1 (total)	0 - 24 hours + 25 hours – 11 months 29 days	58781
Viral hepatitis B - 2	2 months – 11 months 29 days	11013
Viral hepatitis B - 3	3 months – 11 months 29 days	16515
MMR-1	12 - 24 months	54064
MMR-2	5 years - 5 years 11 months 29 days	39188
DT	5 years - 5 years 11 months 29 days	38143
TD	14 years	36957

Table 3.49 Immunization coverage (percent), Georgia, 2010

Vaccine	Immunization coverage (%)
BCG	95.7
DPT-1-Hib-HeBs 1	95.0
DPT-1-Hib-HeBs 3	86.0
DPT-4	78.4
Polio -1	89.4
Polio -3	82.0
Viral hepatitis B1	94.5
Viral hepatitis B3	89.0
Hb3	62.0
Mumps	88.0
Measles containing vaccine I dose	88.0
Measles containing vaccine II dose	84.0
Rubella containing vaccine I dose	89.0

Table 3.50 Timely vaccinations by regions, Georgia, 2010

	Polio - 3	Viral hepatitis B-1 (0-24 hours)	Viral hepatitis B -3 (0 - 1 year)
Ajara	5302	5974	1523
Tbilisi	17252	24148	7320
Kakheti	4297	3254	1353
Imereti	7097	8859	2225
Samegrelo	3894	3389	1013
Shida Kartli	3642	2928	786
Kvemo Kartli	4635	4149	1210
Guria	1279	1075	395
Samtskhe-Javakheti	2135	1968	452
Mtskheta-Mtianeti	950	389	145
Racha-Lechkhumi and Kvemo Svaneti	256	71	93
Georgia	**50739**	**56204**	**16515**

Table 3.51 Timely vaccinations by regions, Georgia, 2010

	DT	MMR-1	MMR-2
Ajara	3467	5753	3744
Tbilisi	12829	18555	12933
Kakheti	3393	4310	3283
Imereti	5428	7449	5430
Samegrelo	2948	4060	2859
Shida Kartli	2222	3648	2679
Kvemo Kartli	4182	5384	4284
Guria	1033	1467	1102
Samtskhe-Javakheti	1734	2289	1965
Mtskheta-Mtianeti	725	935	719
Racha-Lechkhumi and Kvemo Svaneti	182	214	190
Georgia	**38143**	**54064**	**39188**

Table 3.52 Antirabial vaccination, Georgia, 2009-2010

	2009	2010
Number of patients applied for antirabial care	41208	41394
Number of patients preventively vaccinated with gamma globulin	38670	36636
Including:		
Not completed course of vaccinations	22237	25861
Full course of vaccinations	11853	10775
Interrupted vaccinations spontaneously	4580	5028

Table 3.53 Blood donors and blood collection, Georgia, 2005-2010

	2005	2006	2007	2008	2009	2010
Total number of donors	29135	32787	28983	30366	33991	33514
Including voluntary non-renumerated (relatives)	*7115*	*12360*	*7444*	*7575*	11102	10273
Total number of health personnel	456	443	371	317	358	350
Including physicians	*121*	*126*	*103*	*92*	*108*	*108*
Produced (L):						
Total volume of blood without conservants	12290	13472	18133	23529	14424	14026
Including voluntary non-renumerated	*2864*	*3952*	*8548*	*11201*	6432	3896
Packed red blood cells	5596	5982	6292	9693	5726	8404
Fresh frozen plasmf	5750	6955	6130	10478	5041	8157
Leucocyte and platelet-depleted concentrated red cells	645	543	178	356	216	236
Platelet mass (in doses)	1953	1690	1324	105	885	1116
Albumin	66	0	0	0	0	0

Table 3.54 X-ray examinations (including prophylactic examinations), Georgia, 2010

	All	Among them		
		Chest organs	Digestive organs	Bone & joint system
X-ray examinations	**683606**	**294938**	**90618**	**293345**
Including				
Rentgenoscopy	107596	72580	14552	20277
Rentgenography	568101	214184	76347	273052
Eectrorentgenography	713	697	0	16
Diagnostic fluorography	12123	12123	0	0
Special examinations	51421	333	1262	0
Special examinations include:				
Angiography	1380			
Cholecystography	1262			
Urography	1568			
Computer tomography	28714			
Tomography	3993			
Examination of female pelvic organs	71			
Salpingography	228			
Mammography	14202			

Table 3.55 Work of ancillary medical services, Georgia, 2010

	Number
Work of physiotherapy departments	
Number of patients completed the treatment	55452
Including outpatient	25973
Children aged under 15 among all patients completed the treatment	28925
Including outpatient	9684
Number of procedures	349684
Including outpatient	151677
At home	132
Work of therapeutic exercises units	
Number of patients who completed the treatment	17695
Including outpatient	10365
Children aged under 15 among all patients who completed the treatment	8705
Including outpatient	7529
Number of performed procedures	152154
Including outpatient	98831
At home	1357
Work of rephlexotherapy units	
Number of patients completed the treatment	805
Number of performed procedures	7532
Work of hemodialysis departments	
Number of dialysis beds	224
Number of performed procedures	119293
Work of departments of hyperbaric oxygenation	
Number of performed seances	152
Logopedic assisstance	
Number of patients completed speech therapy	916
Including children under 15	899

Table 3.56 Number of ultrasonic examinations, Georgia, 2009-2010

	2009	2010
Circulatory system	77886	89360
Abdominal cavity organs	231289	294601
Female pelvic organs	221818	310943
Among them: during pregnancy	101990	165800
Newborns and young children	8572	12307
Mammary glands	17280	17947
Thyroid gland	45222	60740
Bone and joint system	22646	26246
Doppler examination of peripheral blood vessels	18302	20677
Ultrasonoscopy of the brain	11091	16193
Punch biopsy and drainage by ultrasonic ray	307	468
Intraoperational ultrasonic examination	4248	5459

Table 3.57 Work of endoscopy departments (units), Georgia, 2010

	Total	Including		
		Esophagogastroduodenoscopy	Colonoscopy	Bronchoscopy
Endoscopic examinations	**29935**	**20994**	**2326**	**5053**
		Of which		
Curative procedures	5878	2948	255	2005
Examination with collecting of cytomorphological specimens	2220	729	146	413

Table 3.58 Work of laboratories, Georgia, 2010

	Number of performed tests					
	Total	*Including*				
		Hematological	Cytological	Biochemical	Microbiological	Immunological
Total number of patients	**5542984**	**1936395**	**98912**	**1578846**	**405198**	**671291**
			Including			
Ambulatory patients	3228754	1110856	60989	848700	276535	449574
The total number of tests includes analysis of:						
Hormones						124883
Enzymes						159098
Coagulation and anticoagulation system indices						265563
Water-salt metabolism						93914
Bacteriological examinations of tuberculosis						
Bacterioscopy						109142
Inoculation						33032
Examinations for diphtheria						**1447**
Inoculation						1154
Examinations for meningococcs: Microscopy						78
Inoculation						880
Examinations for malaria Microscopy						**281**
Complex of serological reactions						**220423**
Special reaction for sero- and liquor diagnosis of syphilis						**67327**

Table 3.59 Work of functional diagnostics, Georgia, 2009-2010

	2009	2010
Number of examined patients	**347342**	**396268**
Including outpatient	211413	237560
Children under 15 in all examined patients	16194	24535
Number of examinations	**391874**	**436723**

Table 3.60 Number of departments in medical facilities, Georgia, 2009-2010

Departments	2009	2010
Physiotherapy	178	188
Therapeutic exercises (for adults and children)	115	124
Rephlexotherapy	8	10
Hemodialysis	11	9
Hyperbaric oxygenation	2	1
Surdological	5	4
X-ray (Rentgenological)	301	309
Endoscopic	77	78
Antirabial	80	79
Computer tomography	20	21
Vaccination units	178	165
Autopsy	18	19
Electrocardiography and functional diagnostics	303	329
Blood transfusion	98	117
Laboratories		
Radioisotopical diagnostic	1	3
Clinical-diagnostical	540	556
Bacteriological	102	110
Serological	125	132
Biochemical	363	387
Cytological	83	87

Table 3.61 Autopsies, Georgia, 2009-2010

	2009		2010	
	Number of autopsies performed	% From the number of hospital deaths	Number of autopsies performed	% From the number of hospital deaths
Total	**90**	**1.4**	**37**	**0.6**
		Including		
Children under 15	30	3.1	24	3.0
Newborns aged 0-6 days	11	2.0	5	1.2
Stillborns	254	38.2	112	16.4

Table 3.62 Public nurseries and their performance, Georgia, 2010

	Number of institutions	Number of beneficiaries	Medical staff			Nursing aides
			Physicians	Nurses	Other specialists	
Home for elderly people	2	221	2	11	2	24
Home for disabled people	5	185	12	22	5	47
Among them home for disabled children	2	79	6	8	2	0
Infant's home with mother and child shelter	2	219	8	6	4	0
Children's home	16	4272	16	15	15	0
Among them with day care	6	62	6	6	6	0
Children's centre	3	123	1	1	3	0
Among them Tbilisi crisis centre for children	1	37	1	1	3	0
Children's day care centre	2	86	0	0	0	0
Total	**28**	**4996**	**39**	**55**	**29**	**71**

Table 3.63 Nurseries for infants and their performance, Georgia, 2007-2010

	2007	2008	2009	2010
Number of infant's homes	2	2	2	2
Number of places for children	182	185	200	180
Number of staff	145	153	153	143
Including				
Physician	8	9	9	8
Nurses	9	9	13	7
Teachers	77	75	77	87
Number of children in nurseries by the end of reporting year				
Total	164	160	188	180
Including				
Aged 0-1 year	47	60	38	58
Aged 1-3 years	77	59	73	74
Aged 3 years and more	40	41	77	48
Among the number of children who left nurseries during the year:				
Taken by the parents	60	30	26	47
Adopted	6	11	4	22
Transferred to the facilities of public education and social security due to the age	8	11	32	10
Deceased	23	24	33	12

Table 3.64 Health Care Funding, Georgia, 2002-2009

	2002	2003	2004	2005	2006	2007	2008	2009
Share of total healthcare expenditures from GDP, %	8.7	8.5	8.5	8.6	8.4	8.2	8.7	10.1
Share of state healthcare expenditures from GDP, %	1.2	1.3	1.3	1.7	1.8	1.5	1.8	2.3
Share of state healthcare expenditures from the gross state expenditures, %	6.3	6.7	5.4	6.0	5.7	4.2	4.9	6.1
Share of state healthcare expenditures from the total health expenditures, %	13.5	15.0	15.5	19.6	21.9	18.4	20.6	23.0
Share of private healthcare expenditures from the total health expenditures, %	74.3	77.6	78.4	77.7	73.0	72.4	68.9	71.2
Share of international healthcare funding from total health expenditures, %	12.1	7.4	6.1	2.7	5.1	9.2	10.5	5.8
Total health expenditures, million lari	650.7	724.8	835.9	998.3	1159.6	1386.6	1660.7	1818.5
State healthcare expenditures, million lari	88.1	108.5	129.9	195.7	254.5	255.5	342.7	418.6
Local government health expenditures, million lari	21.2	20	26.7	41.4	17.7	15.6	14.5	18.7
Private health expenditures, million lari	483.6	562.5	655.3	775.2	846.3	1003.4	1144.1	1294.8
Among them paid by trial (advanced) schemes, million lari	2.6	2.8	6.7	7.5	9.8	20.8	24.5	47.5
International healthcare funding, million lari	78.9	53.8	50.7	27.4	58.8	127.7	173.6	105.1
Total health expenditures per capita, lari	149	168	194	229	264	316	379	412
State health expenditures per capita, lari	20	25	30	45	58	58	78	95
Private health expenditures per capita, lari	111	130	152	178	192	229	261	294
International healthcare funding per capita, lari	18	12	12	6	13	29	40	24

Chapter 4.

Population health status

Top 10 prevalent diseases, Georgia, 2010

	Disease	Prevalence per 100000 population by the end of the year
1	Hypertensive diseases	4335.9
2	Certain conditions originating in the perinatal period	3533.8
3	Ischaemic heart diseases	1993.7
4	Mental Psychic and behavioral disorders	1978.8
5	Diabetes mellitus	1599.1
6	Diseases of gallbladder, bile ducts and pancreas	990.5
7	Diseases of oesophagus, stomach and duodenum	904.3
8	Chronic lower respiratory diseases	696.7
9	Certain diseases of thyroid gland	539.1
10	Malignant neoplasms	126.4

Top 10 incident diseases, Georgia, 2010

	Diseases	Incidence per 100000 populations
1	Acute upper respiratory infections	6735.3
2	Hypertensive diseases	1182.5
3	Certain conditions originating in the perinatal period	1001.6
4	Malignant neoplasms	704.5
5	Ischaemic heart diseases	558.5
6	Diseases of oesophagus, stomach and duodenum	514.5
7	Diseases of gallbladder, biliary tract and pancreas	402.3
8	Chronic lower respiratory diseases	320.1
9	Diabetes mellitus	247.6
10	Certain diseases of thyroid gland	226.4

Infectious diseases

Even in the 21st century, in most of European Region countries infectious diseases are one of the main reasons of morbidity and mortality. Incidence of infectious diseases and effective fight against them are correlated with expenditures, preventive measures, treatment and availability of medical services.

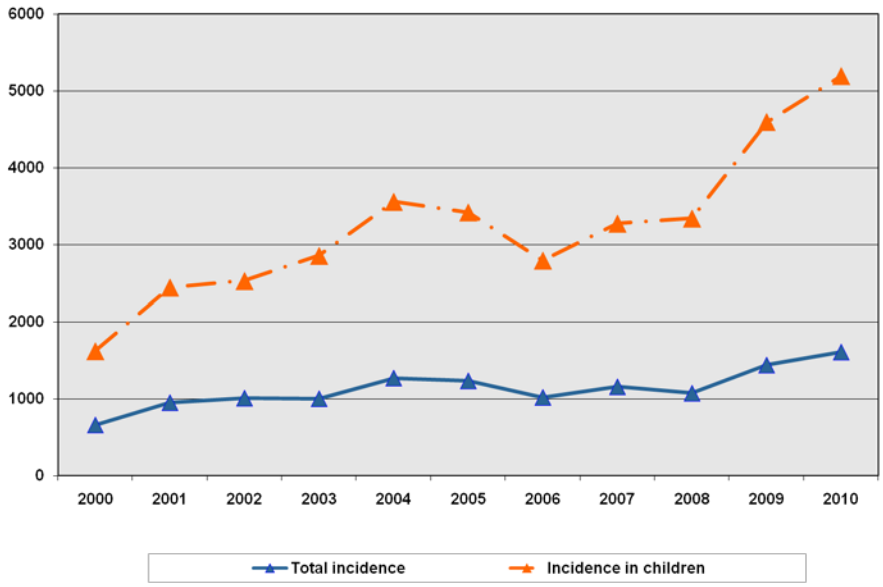
http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases

Fight against infectious diseases requires enhancement of epidemiological surveillance and alignment of work for disease control and prevention systems, as morbidity of infectious diseases is one of the most significant indicators of the real level of country's development and population welfare.

http://www.idsociety.org/Facts_About_ID/

In recent years in Georgia improvement of the epidemiological surveillance system has been entailed by improvement of the statistical reporting, which led to an increase of incidence rate of infectious and parasitic diseases in the total population and in children (See Figure 4.1).

Figure 4.1 Infectious and parasitic diseases, incidence per 100000 populations, Georgia



In 2010, there was a notable increase of hospitalizations due to infectious and parasitic diseases, especially in children (0-15 years). The increase in the total population was 19.8%, in children - 36.6%. Intestinal infections represented main causes of hospitalizations in children (70.3% of cases).

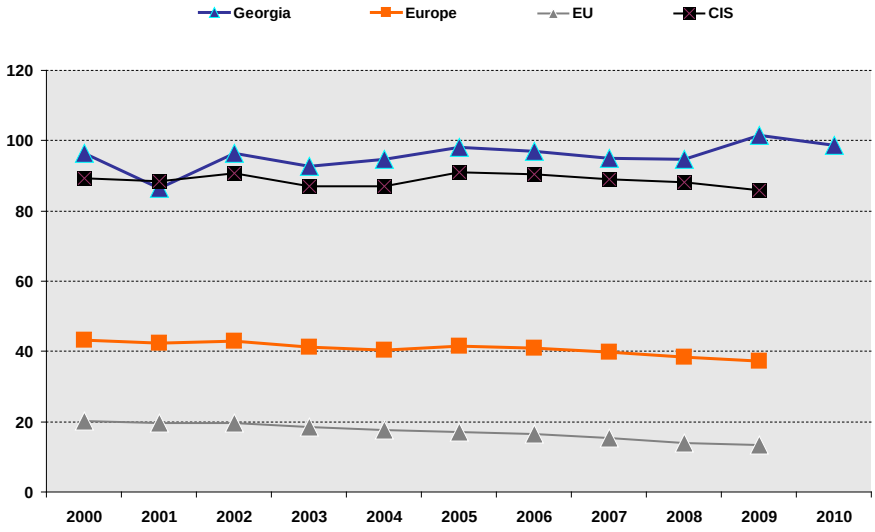
Pulmonary and extrapulmonary tuberculosis*

Prevalence of tuberculosis determines the risk of spread of tuberculosis in the population, it is proportional to the frequency of new cases of tuberculosis and average duration of the disease. In 2010, there was noted a decrease of tuberculosis morbidity; prevalence rate of pulmonary and extrapulmonary tuberculosis per 100000 population totaled to 130.4. In the reporting year there were registered 4392 new cases of pulmonary and extrapulmonary tuberculosis (incidence – 98.6), including 73.5% of pulmonary, and 26.5% of extrapulmonary forms of tuberculosis.

* *See additional information in the chapter "Health-related Millennium Development Goals".*

Despite the decrease of morbidity rates, incidence of tuberculosis in Georgia, compared to other countries, remained quite high (See Figure 4.2).

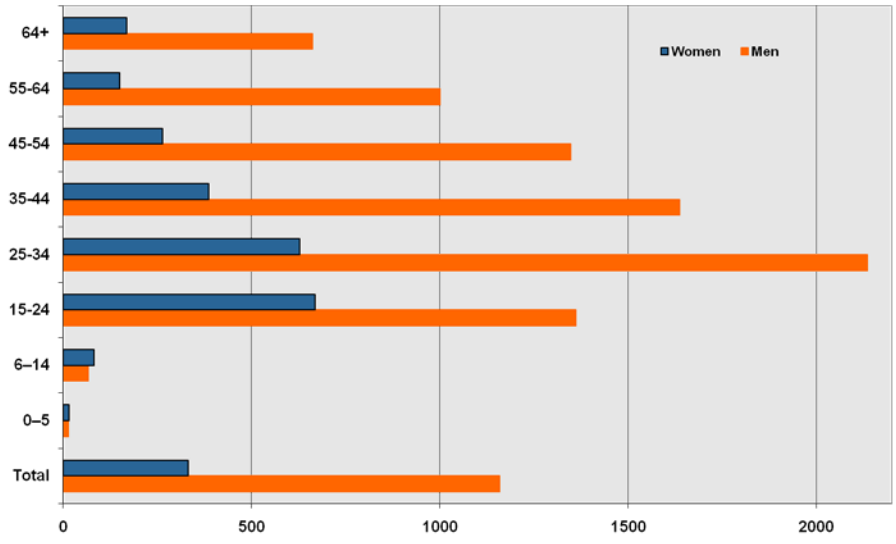
Figure 4.2 Incidence of tuberculosis (per 100000 populations), Georgia, the European Region, the EU, the CIS



Source: WHO HFADB

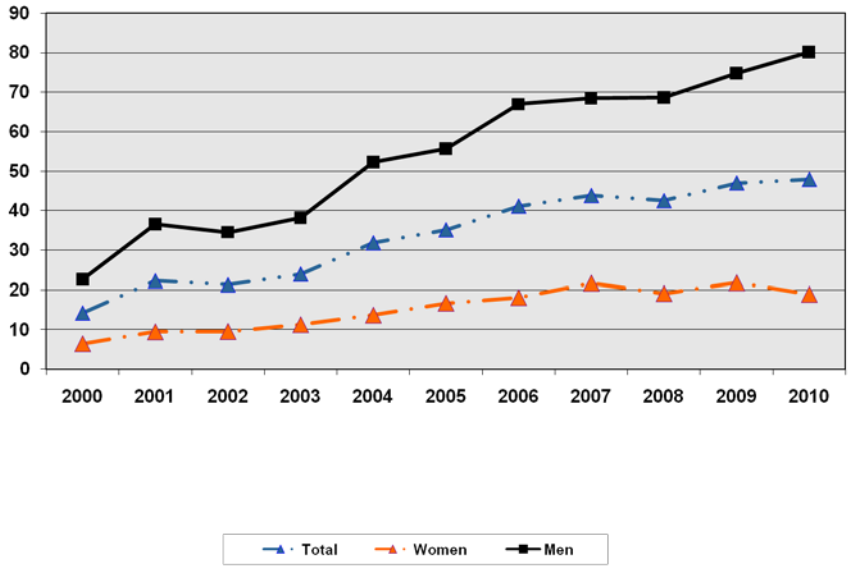
Incidence rate of pulmonary tuberculosis in men was almost 4 times high than in women. Incidence in men in all age groups, except children, highly exceeded rates in the same age groups in women. For both sexes, incidence rates reached maximum in 15-44 years age groups (See Figure 4.3).

Figure 4.3 Incidence rate of pulmonary tuberculosis by sex and age groups, Georgia



Smear positive cases made up 66.3% of newly detected cases of pulmonary tuberculosis (See Figure 4.4) .

Figure 4.4 Incidence of smear positive pulmonary tuberculosis (per 100000 populations), Georgia



In 2010, a decrease of all types of tuberculosis morbidity rate was caused by the reduction of exrapulmonary tuberculosis incidence. The structure of registered cases of extrapulmonary tuberculosis was as follows: tuberculous pleuritis (47.6%), lymph node tuberculosis (23.2%), and bone and joint tuberculosis (10.6%). Out of 36 cases of tuberculous meningitis, 3 cases were recorded in children.

Successful treatment rate is one of the most important indicators of monitoring and evaluation of new cases of smear positive pulmonary tuberculosis. It is counted on the basis of total number of recovered and completed treatment cases. In 2010, compared to the previous year, in Georgia, smear positive pulmonary tuberculosis recovery rate increased by 3.4%; successful treatment rate reached 75.3% (target level recommended by the European Disease Control and Prevention Centre - 85%).

Results of treatment among smear positive pulmonary tuberculosis new cases, registered 12 months ago (according to the WHO indicators), Georgia, 2007-2010

	2007	2008	2009	2010
Number of registered cases	**1580**	**1860**	**1868**	**2055**
% from the total number				
Recovered	63.9	63.2	60.3	63.7
Completed treatment	11.6	13.9	13.2	11.6
Unsuccessful treatment	6.1	6.2	4.4	3.5
Died	3.0	2.5	2.8	3.1
Interrupted treatment	8.9	8.8	8.8	7.3
Transferred to other institutions	5.5	3.1	2.4	1.4
Unevaluated cases	1.0	2.4	1.6	1.3
Assigned category IV	0	0	6.6	8.1

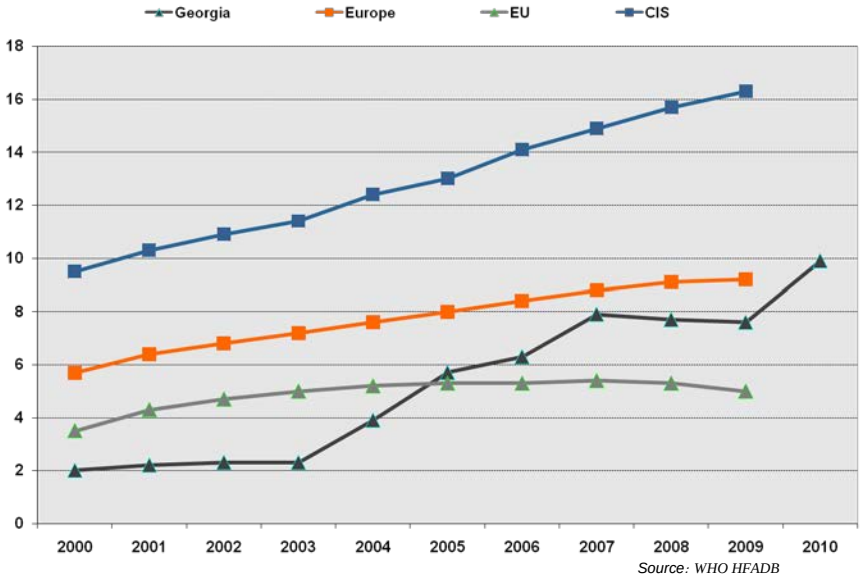
HIV-AIDS*

* *See additional information in the chapter "Health-related Millennium Development Goals".*

Incidence of HIV infection has been increasing in Georgia. In 2010, there were 439 newly detected HIV cases. Incidence rate was 9.9; 71.1% of cases were registered in men.

In Georgia, compared to the CIS countries, incidence rate of HIV infection exceeded 1.7 times the same indicator for the European Union, and was 2 times lower (See Figure 4.5).

Figure 4.5 Dynamics of incidence of HIV (per 100000 populations), Georgia, the European Region, the EU, the CIS



Source: WHO HFADB

In 2010, according to the modes of transmission of new cases, injecting drug use (47.2%) and sexual transmissions (48.5%) constituted a significant share; heterosexual contacts made up 43.5% from all sexually transmitted cases. There were registered 12 cases of vertical transmission (from mother to child).

Distribution of new cases of HIV-infection by the modes of transmission, Georgia, 2006-2010

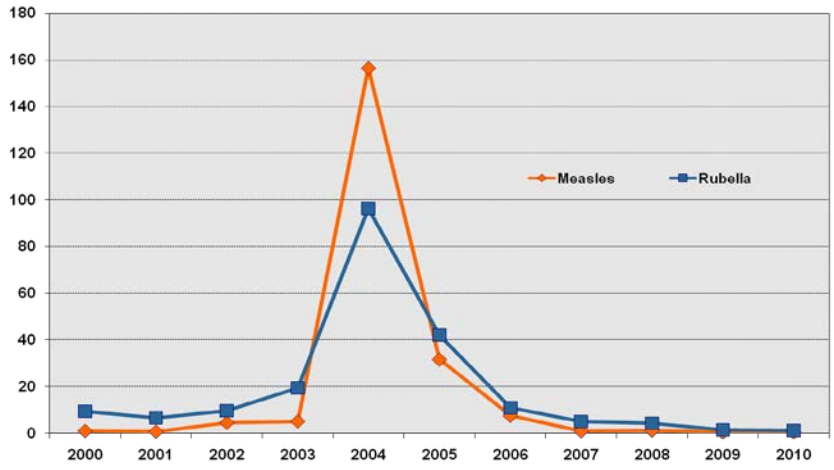
	2006		2007		2008		2009		2010	
	Number	%	Number	%	Number	%	Number	%	Number	%
Injecting drug use	159	57.2	190	55.1	189	55.9	194	57.9	207	47.2
Heterosexual contacts	108	38.8	119	34.5	127	37.6	123	36.7	191	43.5
Homosexual contacts	4	1.4	13	3.8	6	1.8	5	1.5	21	4.8
Blood or blood products transfusion	0	0.0	1	0.3	0	0.0	3	0.9	0	0.0
Vertical transmission	6	2.2	16	4.6	11	3.3	4	1.2	12	2.7
Unidentified	1	0.4	6	1.7	5	1.5	6	1.8	8	1.8
Total	**278**	**100.0**	**345**	**100.0**	**338**	**100.0**	**335**	**100.0**	**439**	**100.0**

During the reporting year, there were registered 301 new cases of AIDS, including 88 developed in already registered HIV cases; 213 cases were detected at the stage of AIDS, rate of late detection - 48.5%. In 2010, 90 patients with AIDS died.

Measles* and Rubella

In 2010, in Georgia there were no significant changes in general incidence of measles and rubella (See Figure 4.6). Incidence of measles in children decreased by 17.4%, incidence of rubella dropped by 11.9%.

Figure 4.6 Measles, rubella incidence per 100000 populations, Georgia



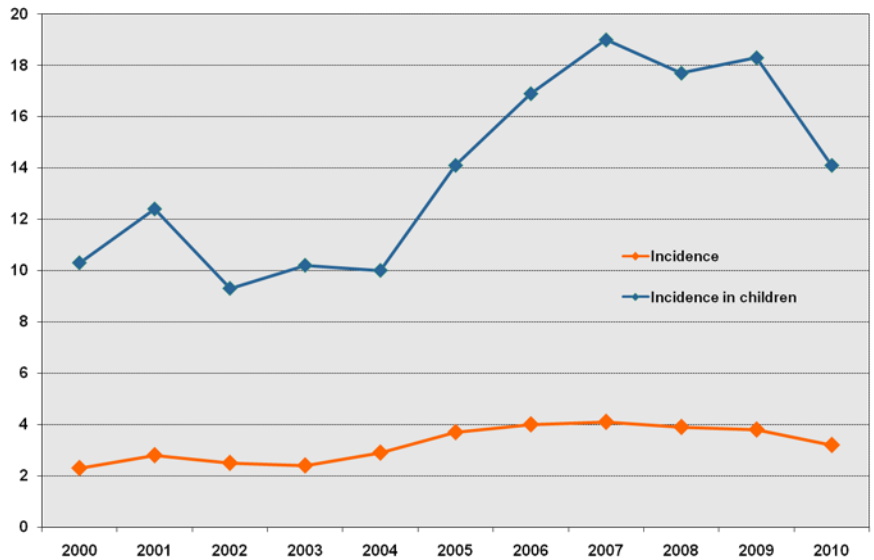
Incidence of measles in Georgia was 2.5 times lower compared to the same indicator in the European Union.

Visceral leishmaniasis

> *Costly and onerous treatments as well as resistance to drugs and pesticides are major challenges to the ambitious goal of eliminating visceral leishmaniasis.*
>
> *Bulletin of the World Health Organization, January, 2010*

In 2010, compared to 2009, number of cases of leishmaniasis decreased in Georgia; incidence rate in children declined from 18.3 to 14.1 (See Figure 4.7).

Figure 4.7 Leishmaniosis, incidence rate per 100000 populations, Georgia



Viral hepatitis B and C

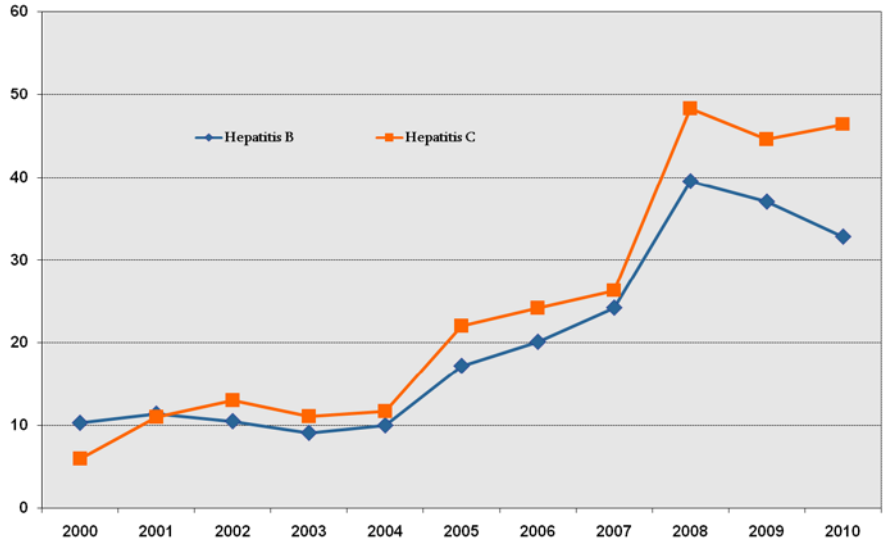
Approximately 5% of the world's population (i.e., 350 million people) is chronically infected with HBV. Approximately 20% of these individuals will eventually develop HBV-related cirrhosis or hepatocellular carcinoma (HCC). According to the World Health Organization, these HBV-related complications lead to 0.5 to 1.2 million deaths each year, making HBV the 10th leading cause of death worldwide.[4]

Hepatitis C is prevalent in 0.5-2% of populations in nations around the world.

emedicine.medscape.com/article/185463-overview#aw2aab6b4

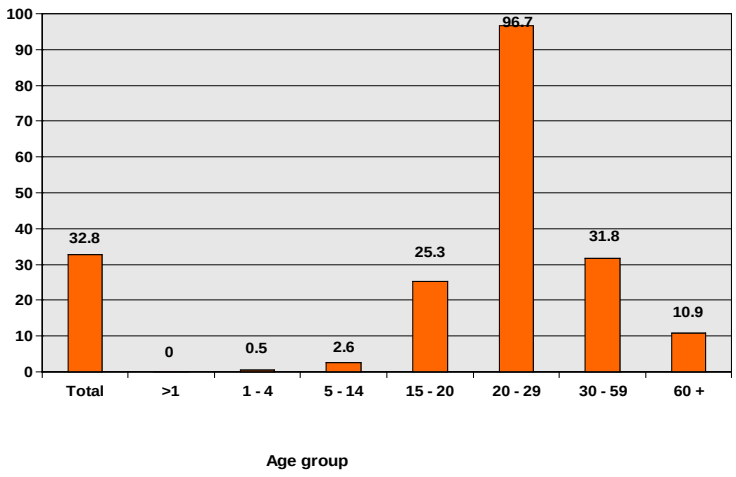
In 2010, in Georgia incidence rate of viral hepatitis B decreased about by 11%. Incidence rate of viral hepatitis C increased by 4% (See Figure 4.8).

Figure 4.8 Incidence rates of Hepatitis B and C per 100000 populations, Georgia



In registered cases of hepatitis B, acute hepatitis made up 7.1%, new chronic cases – 92.9%. Incidence rate reached the maximum in 20-29 years age group (See Figure 4.9).

Figure 4.9 Viral hepatitis B incidence by age groups, Georgia, 2010



In new cases of hepatitis C, 3.0% were acute and 97.0% - chronic cases.

Table 4.1 Infectious and parasitic diseases, incidence per 100000 population, Georgia, 2009-2010

	2009				2010			
	Total		Children among them		Total		Children among them	
	Number of cases	Incidence	Number of cases	Incidence per 100000 children	Number of cases	Incidence	Number of cases	Incidence per 100000 children
Diphtheria	3	0.1	0	0.0	0	0.0	0	0.0
Whooping cough	138	3.1	117	15.5	49	1.1	46	6.1
Measles	23	0.5	17	2.3	22	0.5	14	1.9
Rubella	67	1.5	63	8.4	59	1.3	56	7.4
Mumps	42	0.9	37	4.9	101	2.3	77	10.2
All viral hepatitis	4644	105.3	399	53.0	4 091	91.9	161	21.3
Viral hepatitis A	389	8.8	176	23.4	103	2.3	37	4.9
Viral hepatitis B	1634	37.0	15	2.0	1459	32.8	14	1.9
Viral hepatitis C	1968	44.6	4	0.5	2067	46.4	2	0.3
Other viral hepatitis	653	14.8	204	27.1	462	10.4	108	14.3
Other salmonellas	166	3.8	66	8.8	77	1.7	38	5.0
Shigellosis	96	2.2	76	10.1	159	3.6	124	16.4
Other intestinal bacterial infections	855	19.4	578	76.8	911	20.5	638	84.3
Including: escherichiosis	626	14.2	439	58.3	773	17.4	533	70.5
Bacterial foodborne intoxications	2050	46.5	582	77.3	2649	59.5	1049	138.7
Including: botulism	12	0.3	1	0.1	20	0.4	3	0.4
Amebiasis	4	0.1	1	0.1	7	0.2	3	0.4
Other gastroenteritis and colitis of infectious and unspecified origin	9926	225.0	6572	872.9	19868	446.1	13185	1742.9
Brucellosis	173	3.9	16	2.1	199	4.5	21	2.8
Meningococcemia	34	0.8	32	4.2	15	0.3	12	1.6
All meningitis	190	4.3	110	14.6	300	6.7	210	27.8
Malaria	1	0.02	0	0.0	0	0.0	0	0.0
Leishmaniasis	169	3.8	138	18.3	141	3.2	107	14.1
Acute upper respiratory infections	273468	6199.8	185169	24594.0	262618	5897.8	183817	24298.3
Influenza	36136	819.2	15564	2067.2	19984	448.8	7335	969.6
Cases of hospitalization due to influenza-like diseases	13656	309.6	10383	1379.1	18722	420.5	14701	1943.3
Acute flaccid paralysis / acute poliomyelitis	12	0.3	12	1.6	7	0.2	7	0.9
Tetanus	3	0.1	0	0.0	7	0.2	0	0.0
Tularaemia	1	0.02	0	0.0	3	0.1	0	0.0
Anthrax	38	0.9	0	0.0	28	0.6	1	0.1
Leptospirosis	16	0.4	0	0.0	72	1.6	1	0.1
Scarlet fever	489	11.1	469	62.3	377	8.5	348	46.0
Lyme disease (Borreliosis)	1	0.02	0	0.0	17	0.4	2	0.3
Q fever	0	0.0	0	0.0	2	0.0	1	0.1
Hydrophobia	6	0.1	0	0.0	5	0.1	1	0.1
Unidentified viral infections of CNS	17	0.4	10	1.3	26	0.6	23	3.0
Arthropod-borne viral and viral haemolytic fevers	2	0.1	0	0.0	0	0.0	0	0.0
Varicella	4664	105.7	3978	528.4	4704	105.6	3927	519.1
Cytomegaloviral disease	830	18.8	0	0.0	930	20.9	0	0.0
Infectious mononucleosis	118	2.7	45	6.0	110	2.5	78	10.3
Echinococcosis	58	1.3	19	2.5	80	1.8	24	3.2
Trichinellosis	2	0.1	0	0.0	12	0.3	3	0.4
Ascaridosis	6680	151.4	5485	728.5	6241	140.2	5425	717.1
Trichocephaliasis	812	18.4	671	89.1	611	13.7	476	62.9
Enterobiosis	30345	687.9	27676	3675.9	16470	369.9	14909	1970.8

Table 4.2 Infectious and parasitic diseases by age groups, Georgia, 2009-2010

	Total	Including in age groups						
		<1	1-4	5-14	15-19	20-29	30-59	60 +
Diphtheria	0	0	0	0	0	0	0	0
Whooping cough	49	27	8	11	1	0	2	0
Measles	22	5	7	2	3	5	0	0
Rubella	59	18	26	12	0	3	0	0
Mumps	101	0	10	67	20	4	0	0
All viral hepatitis	4 091	1	14	146	178	1 140	2 159	453
Viral hepatitis A	103	0	4	33	26	20	13	7
Viral hepatitis B	1 459	0	1	13	84	690	581	90
Viral hepatitis C	2 067	0	1	1	16	325	1 424	300
Other viral hepatitis	462	1	8	99	52	105	141	56
Other salmonellas	77	9	18	11	5	10	16	8
Shigellosis	159	17	79	28	10	10	10	5
Other intestinal bacterial infections	911	217	348	73	26	44	124	79
Including: escherichiosis	773	161	312	60	22	37	115	66
Bacterial foodborne intoxications	2 649	100	541	408	191	373	725	311
Including: botulism	20	0	0	3	3	5	9	0
Amebiasis	7	0	2	1	0	0	4	0
Other gastroenteritis and colitis of infectious and unspecified origin	19868	2851	7292	3 042	811	1 701	2 712	1 459
Brucellosis	199	0	3	18	17	44	92	25
Meningococcemia	15	5	6	1	2	0	1	0
All meningitis	300	21	61	128	24	16	34	16
Malaria	0	0	0	0	0	0	0	0
Leishmaniasis	141	25	74	8	2	9	21	2
Acute upper respiratory infections	262 618	44 868	79 376	59 573	13 878	17 740	25 848	21 335
Influenza	19 984	1 402	2 832	3 101	1 771	3 074	4 342	3 462
Cases of hospitalization due to influenza-like diseases	18 722	5 136	7 049	2 516	342	578	1 218	1 883
Acute flaccid paralysis / acute poliomyelitis	7	0	4	3	0	0	0	0
Tetanus	7	0	0	0	0	0	1	6
Tularaemia	3	0	0	0	1	0	2	0
Anthrax	28	0	0	1	1	3	13	10
Leptospirosis	72	0	0	1	12	11	37	11
Scarlet fever	377	17	190	141	27	2	0	0
Lyme disease (Borreliosis)	17	0	0	2	2	2	9	2
Q fever	2	0	0	1	0	1	0	0
Hydrophobia	5	0	0	1	1	1	1	1
Unidentified viral infections of CNS	26	4	3	16	0	1	2	0
Arthropod-borne viral and viral haemolytic fevers	0	0	0	0	0	0	0	0
Varicella	4 704	230	1139	2558	447	236	85	9
Cytomegaloviral disease	930	0	0	0	100	575	244	11
Infectious mononucleosis	110	1	47	30	10	15	7	0
Echinococcosis	80	0	7	17	8	13	21	14
Trichinellosis	12	0	0	3	0	2	7	0
Ascaridosis	6 241	105	1955	3365	302	244	174	96
Trichocephaliasis	611	20	197	259	44	33	38	20
Enterobiosis	16 470	155	5762	8992	669	354	381	157

Table 4.3 Infectious and parasitic diseases, incidence per 100000 population, Georgia, 1988-2010

	Total		Children aged 0-15	
	Number	Incidence	Number	Incidence
1988	58290	1080.0	22656	1771.7
1990	69497	1281.2	28196	2203.5
1995	18770	391.5	8386	842.7
1996	34275	733.2	18799	1982.4
2000	29353	664.4	15320	1640.1
2001	41887	955.1	22595	2456.0
2002	44173	1013.8	23156	2571.2
2003	43410	1002.8	19267	2855.5
2004	55577	1271.3	32580	3557.0
2005	53999	1235.2	31311	3418.4
2006	44882	1020.5	22194	2793.5
2007	50829	1158.3	25121	3274.4
2008	47124	1075.0	25120	3339.5
2009	63510	1439.8	34583	4593.3
2010	**71642**	**1608.9**	**39265**	**5190.4**

Table 4.4 Infectious and parasitic diseases, incidence per 100000 populations by regions, Georgia, 2009-2010

	2009				2010			
	Total		Including children		Total		Including children	
	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence
Abkhazia	1150	--	595	--	1226	--	638	--
Ajara	6545	1701.8	4042	6152.2	7223	1858.2	4157	6298.5
Tbilisi	17765	1551.0	5781	2957.0	17161	1482.6	5812	2954.8
Kakheti	4067	1008.9	2787	4050.9	4170	1028.9	2771	4021.8
Imereti	10722	1538.1	7907	6644.5	16396	2334.3	10365	8688.2
Samegrelo	4326	918.5	2550	3171.6	4286	901.2	2501	3095.3
Shida Kartli	4571	1479.3	3027	5743.8	5387	1727.7	3744	7064.2
Kvemo Kartli	6246	1260.0	3407	4027.2	6210	1235.1	3779	4425.1
Guria	2391	1716.4	1889	7937.0	3112	2221.3	2269	9533.6
Samtskhe-Javakheti	1933	921.8	1158	3234.6	2491	1175.0	1813	5036.1
Mtskheta-Mtianeti	1869	1725.8	1146	6194.6	2134	1956.0	1145	6189.2
Racha-Lechkhumi	466	976.9	234	2888.9	299	629.5	201	2481.5
Medical facilities working under other ministries	1459	--	60	--	1547	--	70	--
Georgia	**63510**	**1439.8**	**34583**	**4593.3**	**71642**	**1608.9**	**39265**	**5190.4**

Table 4.5 Infectious and parasitic diseases, hospital discharges and case fatality by some nosologies, Georgia, 2009-2010

	2009			2010		
	Number of hospital discharges	Including deaths	Case fatality %	Number of hospital discharges	Including deaths	Case fatality %
Infectious and parasitic diseases	**16691**	**171**	**1.0**	**20266**	**201**	**1.0**
Among them						
Intestinal infections	9065	16	0.2	11437	18	0.2
Respiratory tuberculosis	1723	16	0.9	1932	25	1.3
Septicemia	218	55	20.1	224	54	19.4
Viral hepatitis	1493	31	2.0	1165	47	3.9

Table 4.6 Infectious and parasitic diseases, hospital discharges in children (0 – 15) and case fatality by some nosologies, Georgia, 2009-2010

	2009				2010			
	Number of hospital discharges		Case fatality rate %		Number of hospital discharges		Case fatality rate %	
	Total	Including in infants	Total	Including in infants	Total	Including in infants	Total	Including in infants
Infectious and parasitic diseases	**9399**	**3258**	**0.5**	**1.2**	**12904**	**3912**	**0.4**	**1.1**
Including								
Intestinal infections	6408	2419	0.2	0.4	9063	2936	0.1	0.1
Respiratory tuberculosis	182	4	0.0	0.0	177	10	0.0	0.0
Septicemia	107	72	31.8	38.9	85	58	36.5	50.0
Viral hepatitis	119	2	0.0	0.0	79	1	0.0	0.0

Table 4.7 Infectious and parasitic diseases, hospital discharges and case fatality by regions, Georgia, 2008-2010

	2008		2009		2010	
	Number of hospital discharges	Case fatality rate %	Number of hospital discharges	Case fatality rate %	Number of hospital discharges	Case fatality rate %
Ajara	1645	1.6	1213	1.2	1354	1.5
Tbilisi	9037	1.5	8610	1.4	10076	1.1
Kakheti	384	0.5	411	0.2	394	0.0
Imereti	2866	1.0	2645	0.8	3950	1.2
Samegrelo	920	0.4	817	0.7	735	2.0
Shida Kartli	707	0.1	689	0.3	844	0.1
Kvemo Kartli	847	0.0	1061	0.1	1227	0.1
Guria	470	0.0	279	0.0	320	0.0
Samtskhe-Javakheti	799	0.1	777	0.4	1073	0.6
Mtskheta-Mtianeti	0	0.0	0	0.0	3	0.0
Racha-Lechkhumi	216	0.0	47	0.0	130	0.0
Medical facilities working under other ministries	212	0.5	313	0.0	160	0.0
Georgia	**18103**	**1.1**	**16862**	**1.0**	**20266**	**1.0**

Table 4.8 Tuberculosis morbidity 100000 populations, Georgia, 2000 – 2010

	All forms of tuberculosis				Pulmonary tuberculosis			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
2000	5941	133.4	4279	96.5	4587	103.0	2989	67.1
2001	5707	128.8	3801	86.4	4603	103.9	2756	62.2
2002	6346	145.2	4220	96.5	5111	116.9	3093	70.8
2003	6208	143.4	4018	92.8	5012	115.8	2929	67.7
2004	6543	149.7	4145	94.8	5318	121.7	3026	69.2
2005	6696	153.2	4290	98.1	5373	122.9	3057	70.3
2006	6294	143.1	4261	96.9	4934	112.2	3030	68.9
2007	6450	147.0	4170	95.0	5104	116.3	2952	67.3
2008	5831	133.0	4153	94.7	4471	102.0	2931	66.9
2009	5993	135.9	4471	101.4	4587	104.0	3175	72.0
2010	**5806**	**130.4**	**4392**	**98.6**	**4524**	**101.6**	**3228**	**72.5**

Table 4.9 Tuberculosis morbidity 100000 populations by regions, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Ajara	632	164.3	480	124.8	631	162.3	466	119.9
Tbilisi	1591	138.9	1278	111.6	1427	123.3	1162	100.4
Kakheti	312	77.4	240	59.5	288	71.1	237	58.5
Imereti	589	84.5	451	64.7	502	71.5	383	54.5
Samegrelo	668	141.8	480	101.9	556	116.9	413	86.8
Shida Kartli	297	96.1	218	70.6	278	89.2	207	66.4
Kvemo Kartli	530	106.9	398	80.3	444	88.3	342	68.0
Guria	147	105.5	109	78.2	140	99.9	113	80.7
Samtskhe-Javakheti	148	70.6	105	50.1	114	53.8	64	30.2
Mtskheta-Mtianeti	108	99.7	76	70.2	126	115.5	96	88.0
Racha-Lechkhumi	26	54.5	22	46.1	18	37.9	13	27.4
Medical facilities working under other ministries	945	--	614	--	1282	--	896	--
Georgia	**5993**	**135.9**	**4471**	**101.4**	**5806**	**130.4**	**4392**	**98.6**

Table 4.10 Pulmonary tuberculosis morbidity by regions, Georgia, 2009–2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Ajara	459	119.3	314	81.6	487	125.3	329	84.6
Tbilisi	1196	104.4	911	79.5	1095	94.6	860	74.3
Kakheti	226	56.1	161	39.9	217	53.5	173	42.7
Imereti	464	66.6	339	48.6	402	52.7	291	41.4
Samegrelo	531	112.7	353	74.9	425	89.4	294	61.8
Shida Kartli	226	73.1	153	49.5	217	69.6	150	48.1
Kvemo Kartli	376	75.9	255	51.4	321	63.8	230	45.7
Guria	122	87.6	85	61.0	112	79.9	85	60.7
Samtskhe-Javakheti	111	52.9	71	33.9	85	40.1	42	19.8
Mtskheta-Mtianeti	82	75.7	55	50.8	89	81.6	62	56.8
Racha-Lechkhumi	17	35.6	13	27.3	13	27.4	8	16.8
Medical facilities working under other ministries	777	--	465	--	1061	--	704	--
Georgia	**4587**	**104.0**	**3175**	**72.0**	**4524**	**101.6**	**3228**	**72.5**

Table 4.11 New cases of pulmonary tuberculosis (by smear microscopy results), Georgia, 2009 – 2010

	2009			2010		
	Number of smear positive cases	Number of smear negative cases	Number of cases without microscopy	Number of smear positive cases	Number of smear negative cases	Number of cases without microscopy
Ajara	176	126	12	190	126	13
Tbilisi	545	349	17	524	326	10
Kakheti	112	48	1	117	54	2
Imereti	235	100	4	201	84	6
Samegrelo	233	108	12	206	83	5
Shida Kartli	101	51	1	92	56	2
Kvemo Kartli	153	89	13	158	65	7
Guria	45	40	0	44	41	0
Samtskhe-Javakheti	34	36	1	17	22	3
Mtskheta-Mtianeti	39	16	0	45	16	1
Racha-Lechkhumi	8	5	0	5	2	1
Medical facilities working under other ministries	374	90	1	541	158	5
Georgia	**2055**	**1058**	**62**	**2140**	**1033**	**55**

Table 4.12 Incidence of extra pulmonary tuberculosis by regions, Georgia, 2008 – 2009

	2009			2010		
	Number of new cases	Incidence	% from the total number of new cases of tuberculosis	Number of new cases	Incidence	% from the total number of new cases of tuberculosis
Ajara	166	43.2	34.6	137	35.2	29.4
Tbilisi	367	32.0	28.7	302	26.1	26.0
Kakheti	79	19.6	32.9	64	15.8	27.0
Imereti	112	16.1	24.8	92	13.1	24.0
Samegrelo	127	27.0	26.5	119	25.0	28.8
Shida Kartli	65	21.0	29.8	57	18.3	27.5
Kvemo Kartli	143	28.8	35.9	112	22.3	32.7
Guria	24	17.2	22.0	28	20.0	24.8
Samtskhe-Javakheti	34	16.2	32.4	22	10.4	34.4
Mtskheta-Mtianeti	21	19.4	27.6	34	31.2	35.4
Racha-Lechkhumi	9	18.9	40.9	5	10.5	38.5
Medical facilities working under other ministries	149	--	24.3	192	--	21.4
Georgia	**1296**	**29.4**	**29.0**	**1164**	**26.1**	**26.5**

Table 4.13 Number of registered cases of extra pulmonary tuberculosis by localization, Georgia, 2004 – 2009

	2005	2006	2007	2008	2009	2010
Cases of extra pulmonary tuberculosis	**1323**	**1360**	**1346**	**1360**	**1406**	**1282**
Including						
Tuberculous meningitis	44	28	24	44	32	36
Bone and joint tuberculosis	131	138	149	151	122	137
Urogenital tuberculosis	66	96	115	91	97	107
Tuberculous pleuritis	649	652	649	616	688	610
Tuberculosis of lymph nodes	397	189	330	320	346	297
Tuberculosis of other organs	36	257	79	138	121	95

Table 4.14 Tuberculous meningitis, Georgia, 2003 – 2010

	2003	2004	2005	2006	2007	2008	2009	2010
All registered cases	60	42	44	28	24	44	32	36
In children among them	*27*	*26*	*26*	*11*	*9*	*9*	*2*	*3*

Table 4.15 New cases of HIV infection, incidence by regions, Georgia, 2006 – 2010

	2006		2007		2008		2009		2010	
	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence
Abkhazia	3	-	13	-	32	-	26	-	27	-
Ajara	42	11.1	53	14.0	32	8.4	37	9.7	35	9.1
Tbilisi	87	7.9	105	9.5	130	11.8	133	11.7	163	14.1
Kakheti	17	4.2	14	3.5	11	2.7	24	6.0	21	5.2
Imereti	45	6.4	61	8.7	44	6.3	36	5.2	73	10.4
Samegrelo	39	8.3	59	12.6	56	12.0	46	9.8	64	13.5
Shida Kartli	8	2.6	11	3.5	12	3.8	12	3.8	16	5.2
Kvemo Kartli	18	3.6	17	3.3	14	2.8	12	2.5	20	4.0
Guria	10	7.2	6	4.3	4	2.9	6	4.3	11	7.9
Samtskhe-Javakheti	6	2.9	2	1.0	0	0.0	3	1.4	4	1.9
Mtskheta-Mtianeti	2	1.6	4	3.2	3	2.5	0	0.0	4	3.7
Racha-Lechkhumi and Kvemo Svaneti	1	2.0	0	0.0	0	0.0	0	0.0	1	2.1
Georgia	**278**	**6.3**	**345**	**7.9**	**338**	**7.7**	**335**	**7.6**	**439**	**9.9**

Table 4.16 New cases of HIV infection, incidence by sex and age groups, Georgia, 2006 – 2010

		2006		2007		2008		2009		2010	
		Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence
Male - total		**202**	**9.7**	**246**	**11.8**	**237**	**11.4**	**233**	**11.2**	**312**	**14.8**
Including	0-14	5	1.19	9	2.22	6	1.52	2	0.51	8	2.01
	15-24	6	1.64	10	2.72	9	2.45	3	0.83	17	4.75
	25+	191	14.7	227	17.4	222	16.9	228	17.2	287	21.2
Female - total		**76**	**3.7**	**99**	**4.8**	**101**	**4.9**	**102**	**4.9**	**127**	**6.0**
Including	0-14	1	0.24	8	1.97	5	1.26	2	0.51	4	1.00
	15-24	14	3.84	24	6.52	12	3.26	15	4.13	14	3.91
	25+	61	4.70	67	5.13	84	6.39	85	6.43	109	8.06
Both sexes - total		**278**	**6.3**	**345**	**7.9**	**338**	**7.7**	**335**	**7.6**	**439**	**9.9**
Including	0-14	6	0.8	17	2.2	11	1.5	4	0.5	12	1.6
	15-24	20	2.8	34	4.7	21	2.9	18	2.6	31	4.4
	25+	252	8.8	294	10.2	306	10.5	313	10.6	396	13.2

Table 4.17 New cases of AIDS by regions, Georgia, 2006 – 2010

	2006		2007		2008		2009		2010	
	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence
Abkhazia	1	-	5	-	9	-	10	-	14	-
Ajara	22	5.83	26	6.86	25	6.58	28	7.32	26	6.72
Tbilisi	43	3.90	51	4.63	68	6.14	91	8.01	114	9.89
Kakheti	14	3.46	12	2.97	9	2.24	12	2.99	17	4.20
Imereti	22	3.14	33	4.73	18	2.59	35	5.05	46	6.57
Samegrelo	30	6.34	30	6.39	34	7.27	38	8.12	46	9.70
Shida Kartli	6	1.91	8	2.55	9	2.88	6	1.92	12	3.86
Kvemo Kartli	13	2.56	8	1.57	5	0.99	12	2.45	13	2.60
Guria	5	3.59	3	2.16	2	1.44	4	2.88	4	2.86
Samtskhe-Javakheti	5	2.40	1	0.48	2	0.96	2	0.96	6	2.84
Mtskheta-Mtianeti			3	2.42	2	1.69	1	0.95	2	1.84
Racha-Lechkhumi and Kvemo Svaneti	1	2.04	0	0.0	0	0.0	0	0.0	1	2.10
Georgia	**162**	**3.68**	**180**	**4.10**	**183**	**4.18**	**239**	**5.45**	**301**	**6.6**

Table 4.18 Cases of late diagnosis of AIDS by sex and age groups, Georgia, 2008-2010

	2008			2009			2010		
	Number of new HIV cases	Including AIDS cases	%	Number of new HIV cases	Including AIDS cases	%	Number of new HIV cases	Including AIDS cases	%
Male - total	**237**	**107**	**45.1**	**233**	**115**	**49.4**	**312**	**157**	**50.3**
Including 0-14	6	5	83.3	2	1	50.0	8	6	75.0
15-24	9	0	0.0	3	0	0.0	17	1	5.9
25+	222	102	45.9	228	114	50.0	287	150	52.3
Male - total	**101**	**32**	**31.7**	**102**	**33**	**32.4**	**127**	**56**	**44.1**
Including 0-14	5	3	60.0	2	0	0.0	4	3	75.0
15-24	12	1	8.3	15	2	13.3	14	3	21.4
25+	84	28	33.3	85	31	36.5	109	50	45.9
Both sexes	**338**	**139**	**41.1**	**335**	**148**	**44.2**	**439**	**213**	**48.5**

Table 4.19 Cases of late diagnosis of AIDS by modes of transmission, Georgia, 2008-2010

Mode of transmission	2008			2009			2010		
	Number of new HIV cases	Including AIDS cases	%	Number of new HIV cases	Including AIDS cases	%	Number of new HIV cases	Including AIDS cases	%
Injecting drug use	189	85	45.0	194	101	52.1	207	116	56.0
Heterosexual contacts	127	38	29.9	123	41	33.3	191	80	41.9
Homosexual contacts	6	3	50.0	5	1	20.0	21	6	28.6
Blood or blood products transfusion	0	0	0.0	3	3	100.0	0	0	0.0
Vertical transmission	11	8	72.7	4	1	25.0	12	9	75.0
Unidentified	5	5	100.0	6	1	16.7	8	2	25.0
Total	**338**	**139**	**41.1**	**335**	**148**	**44.2**	**439**	**213**	**48.5**

Table 4.20 Mortality of HIV-infected patients by causes of death, Georgia, 2006 – 2010

	2006		2007		2008		2009		2010	
	Number of deaths	Case fatality, %	Number of deaths	Case fatality, %	Number of deaths	Case fatality, %	Number of deaths	Case fatality, %	Number of deaths	Case fatality, %
HIV-related	17	39.5	32	56.1	27	69.2	46	69.7	78	86.7
HIV-unrelated	21	48.8	22	38.6	10	25.6	16	24.2	9	10.0
Unknown	5	11.6	3	5.3	2	5.1	4	6.1	3	3.3
Total	**43**	**100.0**	**57**	**100.0**	**39**	**100.0**	**66**	**100.0**	**90**	**100.0**

Table 4.21 Hepatitis A, incidence by regions, Georgia, 2009 – 2010

	2009				2010			
	Total		Including in children		Total		Including in children	
	Number of cases	Incidence	Number of cases	Incidence per 100000 children	Number of cases	Incidence	Number of cases	Incidence per 100000 children
Ajara	69	17.9	40	60.9	2	0.5	1	1.5
Tbilisi	81	7.1	22	11.3	32	2.8	11	5.6
Kakheti	36	8.9	22	32.0	11	2.7	2	2.9
Imereti	8	1.1	4	3.4	6	0.9	0	0.0
Samegrelo	68	14.4	24	29.9	23	4.8	10	12.4
Shida Kartli	3	1.0	3	5.7	3	1.0	0	0.0
Kvemo Kartli	53	10.7	41	48.5	16	3.2	9	10.5
Guria	7	5.0	6	25.2	6	4.3	3	12.6
Samtskhe-Javakheti	1	0.5	1	2.8	2	0.9	0	0.0
Mtskheta-Mtianeti	6	5.5	3	16.2	1	0.9	1	5.4
Racha-Lechkhumi	1	2.1	0	0.0	1	2.1	0	0.0
Medical facilities working under other ministries	56	--	10	--	**0**	--	0	-
Georgia	**389**	**8.8**	**176**	**23.4**	**103**	**2.3**	**37**	**4.9**

Table 4.22 Hepatitis B, incidence by regions, Georgia, 2010

	Number of cases of acute viral hepatitis B	Incidence	Number of new cases of chronic viral hepatitis B	Incidence
Ajara	8	2.1	286	73.6
Tbilisi	32	2.8	246	21.3
Kakheti	24	5.9	39	9.6
Imereti	12	1.7	437	62.2
Samegrelo	2	0.4	174	36.6
Shida Kartli	4	1.3	38	12.2
Kvemo Kartli	16	3.2	65	12.9
Guria	1	0.7	52	37.1
Samtskhe-Javakheti	3	1.4	11	5.2
Mtskheta-Mtianeti	1	0.9	5	4.6
Racha-Lechkhumi and Kvemo Svaneti	0	0.0	2	4.2
Georgia	**103**	**2.3**	**1355**	**30.4**

Table 4.23 Acute and chronic hepatitis C, incidence by regions, Georgia, 2010

	Number of cases of acute viral hepatitis C	Incidence	Number of new cases of chronic viral hepatitis C	Incidence
Ajara	0	0	164	42,2
Tbilisi	11	1.0	618	53.4
Kakheti	9	2.2	27	6.7
Imereti	25	3.6	716	101.9
Samegrelo	1	0.2	349	73.4
Shida Kartli	3	1.0	27	8.7
Kvemo Kartli	11	2.2	45	8.9
Guria	1	0.7	45	32.1
Samtskhe-Javakheti	0	0	7	3.3
Mtskheta-Mtianeti	0	0	5	4.6
Racha-Lechkhumi and Kvemo Svaneti	0	0	3	6.3
Georgia	**61**	**1.4**	**2006**	**45.1**

Table 4.24 Structure of intestinal infections (%), Georgia, 2009 – 2010

	2009		2010	
	Number of cases	%	Number of cases	%
Total	13097	100	23669	100
Including				
Other salmonella infections	166	1.3	77	0.3
Shigellosis	96	0.7	159	0.7
Other intestinal bacterial infections	855	6.5	911	3.8
Bacterial foodborne intoxications	2050	15.7	2649	11.2
Amebiasis	4	0.0	7	0.0
Diarrhoea of presumed infectious origin	9926	75.8	19866	83.9

Table 4.25 Diarrhoea of presumably infectious origin (by regions), Georgia, 2009 – 2010

	2009				2010			
	Total		Including in children		Total		Including in children	
	Number of cases	Incidence	Number of cases	Incidence per 100000 children	Number of cases	Incidence	Number of cases	Incidence per 100000 children
Ajara	3559	925.4	2390	3637.7	9747	14768.2	6183	9368.2
Tbilisi	1388	121.2	872	446.0	2287	1162.7	1714	871.4
Kakheti	346	85.8	148	215.1	387	561.7	198	287.4
Imereti	1332	191.1	926	778.2	2301	1928.8	1685	1412.4
Samegrelo	573	121.7	312	388.1	716	886.1	341	422.0
Shida Kartli	679	219.7	444	842.5	1327	2503.8	866	1634.0
Kvemo Kartli	1140	230.0	1021	1206.9	1339	1567.9	1131	1324.4
Guria	89	63.9	53	222.7	230	966.4	125	525.2
Samtskhe-Javakheti	204	97.3	156	435.8	447	1241.7	392	1088.9
Mtskheta-Mtianeti	81	74.8	40	216.2	133	718.9	74	400.0
Racha-Lechkhumi	111	232.7	26	321.0	312	3851.9	103	1271.6
Other	424	-	184	-	642	-	373	-
Georgia	**9926**	**225.0**	**6572**	**872.9**	**19868**	**2626.3**	**13185**	**1742.9**

Table 4.26 Sexually transmitted diseases, incidence by regions, Georgia, 2010

	Syphilis		Gonococcal infection	
	Number of cases	Incidence	Number of cases	Incidence
Ajara	55	14.1	110	28.3
Tbilisi	437	37.8	341	29.5
Kakheti	8	2.0	66	16.3
Imereti	41	5.8	22	3.1
Samegrelo	23	4.8	59	12.4
Shida Kartli	2	0.6	2	0.6
Kvemo Kartli	23	4.6	112	22.3
Guria	6	4.3	0	0.0
Samtskhe-Javakheti	4	1.9	8	3.8
Mtskheta-Mtianeti	0	0.0	0	0.0
Racha-Lechkhumi	0	0.0	0	0.0
Medical facilities working under other ministries	0	-	21	-
Georgia	**599**	**13.5**	**741**	**16.6**

Table 4.27 Sexually transmitted diseases, incidence, Georgia 2008 – 2010

	2008		2009		2010	
	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence
Syphilis	346	7.9	503	11.4	599	13.5
Gonococcal infection	684	15.6	670	15.2	741	16.6
Chlamydial infection	709	16.2	1276	28.9	1646	37.0
Trichomoniasis	3446	78.5	3925	89.0	4340	97.5

Table 4.28 Sexually transmitted diseases, distribution of new cases by age and sex, Georgia, 2010

		Age groups											
		Total		0 - 14		15 - 19		20 - 29		30 - 39		40 and more	
	Sex	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence
Syphilis, all forms of the disease	M	**400**	**100.1**	4	1.0	70	41.3	112	31.1	128	41.5	86	9.8
	F	**199**	**55.5**	0	0.0	10	6.2	88	24.9	61	19.0	40	4.1
Gonococcal infection	M	**614**	**153.7**	2	0.5	165	97.3	265	73.6	142	46.0	40	4.5
	F	**127**	**35.4**	2	0.6	16	9.9	59	16.7	33	10.3	17	1.7
Other venereal diseases	M	**304**	**76.1**	0	0.0	147	86.7	112	31.1	37	12.0	8	0.9
	F	**307**	**85.6**	1	0.3	41	25.3	133	37.6	111	34.6	21	2.1
Chlamydial infection	M	**689**	**172.5**	0	0.0	165	97.3	257	71.4	201	65.1	66	7.5
	F	**957**	**266.9**	1	0.3	183	112.8	458	129.6	248	77.4	67	6.8
Trichomoniasis	M	**1493**	**373.7**	1	0.3	362	213.4	688	191.1	360	116.6	82	9.3
	F	**2847**	**794.1**	3	0.8	317	195.4	1287	364.3	881	274.8	359	36.5

Table 4.29 Mycoses, Georgia, 2008-2010

	2008		2009		2010	
	Number of cases	**Incidence**	**Number of cases**	**Incidence**	**Number of cases**	**Incidence**
All mycoses	**8050**	**183.6**	**9770**	**221.5**	**10127**	**227.4**
Among them						
Trichophytia	520	11.9	549	12.4	599	13.5
Microsporia	131	3.0	163	3.7	208	4.7
Candidiasis	5068	115.6	7133	161.7	7665	172.1
Other mycosis	2331	53.2	1925	43.6	1655	37.2

Table 4.30 Acariasis (scabies), Georgia, 2003-2010

	Number of cases	Incidence
2003	1705	39.5
2004	2139	48.9
2005	2399	54.9
2006	2056	46.7
2007	1842	42.0
2008	1957	44.6
2009	1832	41.5
2010	**1863**	**41.8**

Non-communicable diseases

Non-communicable diseases place an increasingly heavy burden on people's health, from the viewpoint of morbidity and mortality, in both developed and developing countries.

In 2008, deaths from non-communicable diseases accounted for 63% of the total mortality rate. According to the data drawn from estimates developed by WHO, 388 million people will die of the diseases such as cardiovascular diseases, diabetes, cancers and chronic respiratory diseases in the coming decade.

GSR 2010, World Health Statistics, 2011, WHO

In Georgia, according to the WHO estimates, the proportion of deaths from non-communicable diseases from the total number of deaths is 91%, among which circulatory system diseases account for 71%; cancers – 12%, diabetes – 2% and chronic respiratory diseases -1%.

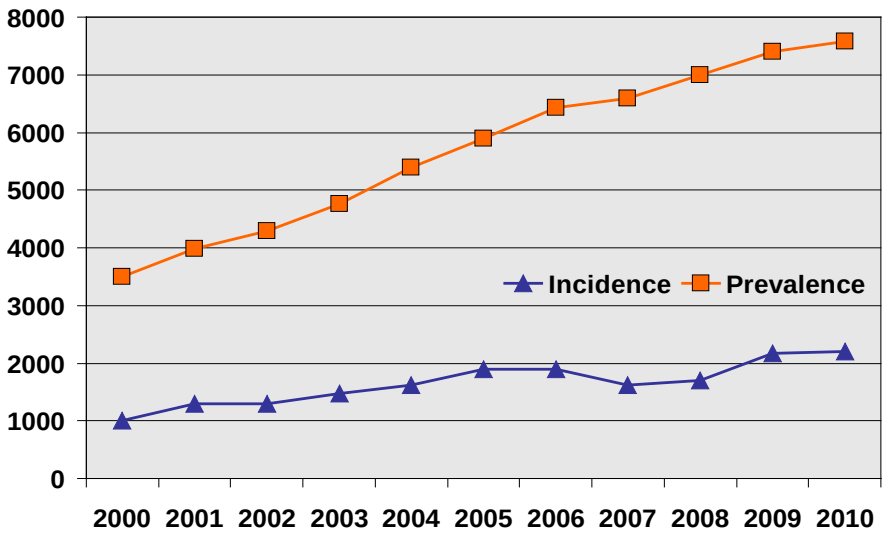
Diseases of the cirsulatory system

Cardiovascular diseases are the world's largest killers, claiming 17.3 million lives a year.. This generally accounts for nearly 30% of total mortality rate. Cardiovascular diseases are projected to kill 23.6 million people by 2030; the main causes of the deaths will be due to heart diseases and strokes.

International Cardiovascular Diseases - www.sld.cu

In Georgia, in 2000 – 2010, there was an increase of the prevalence of diseases of the circulatory system; this can be explained not only by the actual increase of the incidence of such diseases, but also by the improvement of reporting completeness, compared to previous years. Routinely collected health data show that in the class of the circulatory system diseases the prevalence of hypertensive diseases, ischemic heart diseases and cerebrovascular diseases are significantly high (See Figure 4.10).

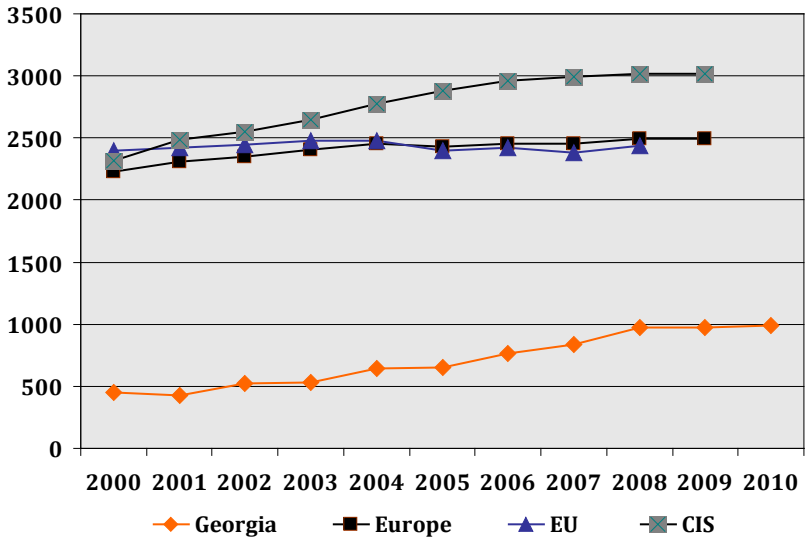
Figure 4.10 **Diseases of the circulatory system, morbidity indicators, Georgia**



In the structure of the circulatory system diseases a share of hypertensive diseases is 57.1% (prevalence – 4335.9, incidence – 1 182.5), ischemic heart diseases – 26.3% (prevalence – 1993.7, incidence – 558.5) and cerebrovascular diseases – 4.4% (prevalence – 333.7, incidence – 112.7).

In 2010, the number of hospitalizations, due to the circulatory system diseases, increased by 2.5% compared to the data of 2009. The hospitalization rate accounted to 986.1 per 100 000 population, this is three times less than in the CIS countries and 2.5 times less than in the European Union countries. The case fatality did not changed significantly, compared to the previous year (See Figure 4.11).

Figure 4.11 Diseases of the circulatory system, hospitalization rate per 100 000 population, Georgia, the European Region, the EU, the CIS



source: WHO HFADB

The largest proportion of circulatory system disease case fatality rate is related to the cases of pulmonary heart disease and diseases of pulmonary circulation (21.3%) and cerebrovascular diseases (15.5%).

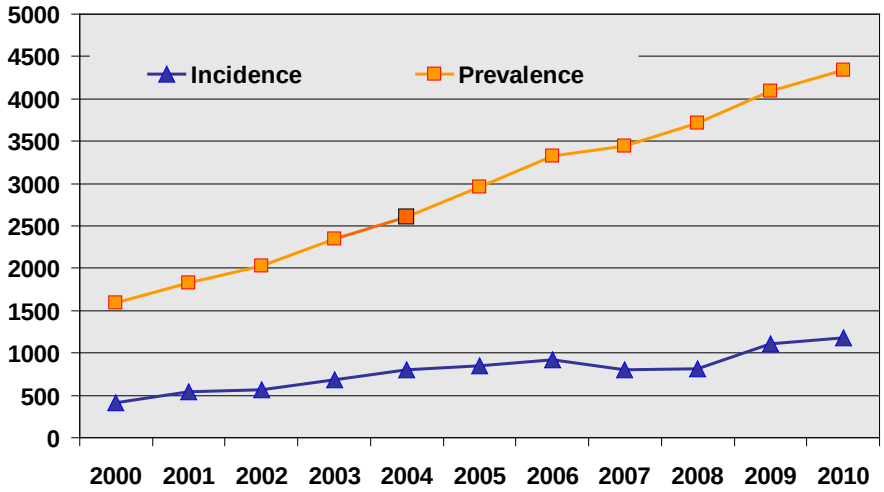
Hypertensive diseases

Arterial hypertensive diseases remain the leading cause of morbidity and mortality worldwide.

University of Wisconsin School of Medicine and Public Health (2007)

In 2000 – 2010, in Georgia, in the class of the circulatory system diseases the share of hypertensive diseases varied between 48% and 57%. Prevalence and incidence rates of hypertensive diseases are growing and, in 2010, compared to the previous year, the rates have increased by 8% and 7% respectively (See Figure 4.12).

Figure 4.12 Hypertensive diseases, morbidity rats, Georgia



”Non-communicable diseases risk factors survey in Georgia” was conducted under the cooperation of the Ministry of Labor, Health and Social Affairs of Georgia and the WHO in 2006-2007. The results of the study reported high arterial pressure in 34% of studied population.

In 2010, the first nationwide “Non-communicable diseases risk factors survey” (STEPS-2010) was conducted by the National Centre for disease control and public health, with the support of the WHO and the European Union; 33.4% of respondents (37% of males and 30% of females) were reported as having developed or potential hypertension. Among respondents, diagnosed with hypertension, 61.1% did not receive a relevant antihypertensive therapy.

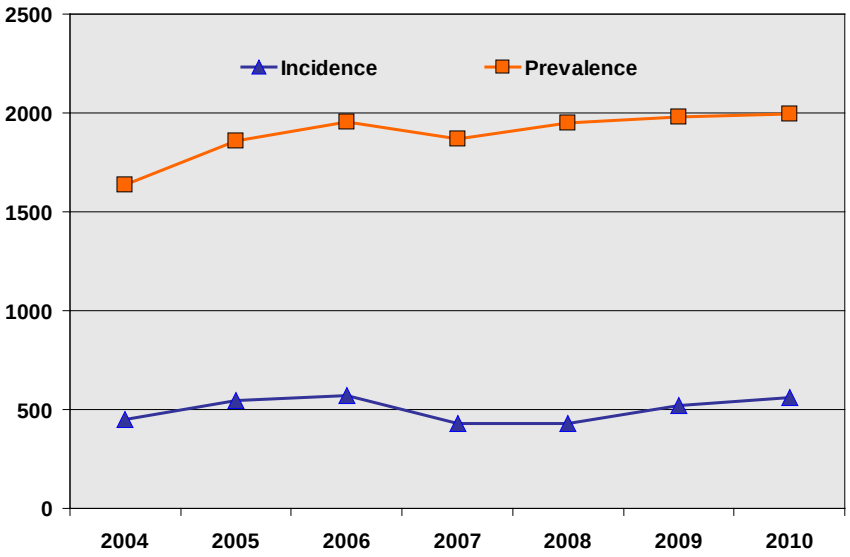
In 2009-2011, the EUROPREV survey, conducted in Georgia, revealed that most encounters with primary health care facilities were due to high blood pressure.

Ischaemic heart diseases

Ischaemic heart diseases represent the second major group within the class of the circulatory system diseases. In 2010, their share stood at 26.3%.

The prevalence rate of ischaemic heart diseases is characterized by insignificant growth. By the end of 2010, the prevalence rate of ischaemic heart diseases stood at 993.7; incidence – at 558.5 (See Figure 4.13).

Figure 4.13 Ischemic heart diseases, morbidity rates, Georgia



In the group of ischaemic heart diseases the number of cases of stenocardia accounts to 33.7% of all registered and 39.0% of new cases.

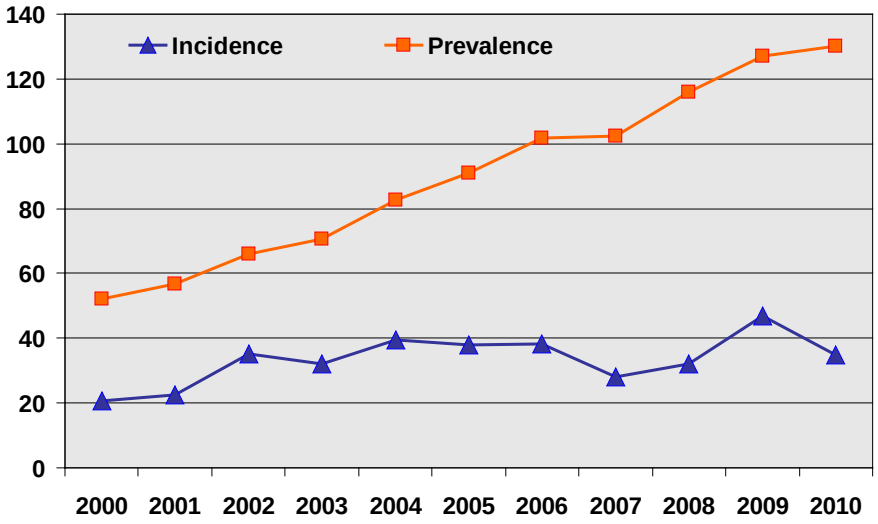
Acute Myocardial Infarction

Ishcaemic heart disease is considered as "disease number 1". In the developed countries in the list of causes of deaths it is at the first place. According to the WHO statistics, annually 25% patients with first myocardial infarction and 50% of patients with repeated myocardial infarction die.

www.who.tobacco/research/heart_disease/en/

In 2010, the incidence rate of acute myocardial infarction stood at 34.7, this was 26% less compared to 2009. Total number of hospitalized patients was 5790 (hospitalization rate per 100 000 population - 130.0), case fatality rate – 9.4% (See Figure 4.14).

Figure 4.14 **Acute myocardial infarction , incidence and hospitalisation rates per 100000 population, Georgia**



2 673 patients with an acute myocardial infarction were hospitalized within the first 24 hours after the onset of the disease (46% of the total number of the hospitalized patients with acute infarction, this was 25% more than in 2009).

Stroke

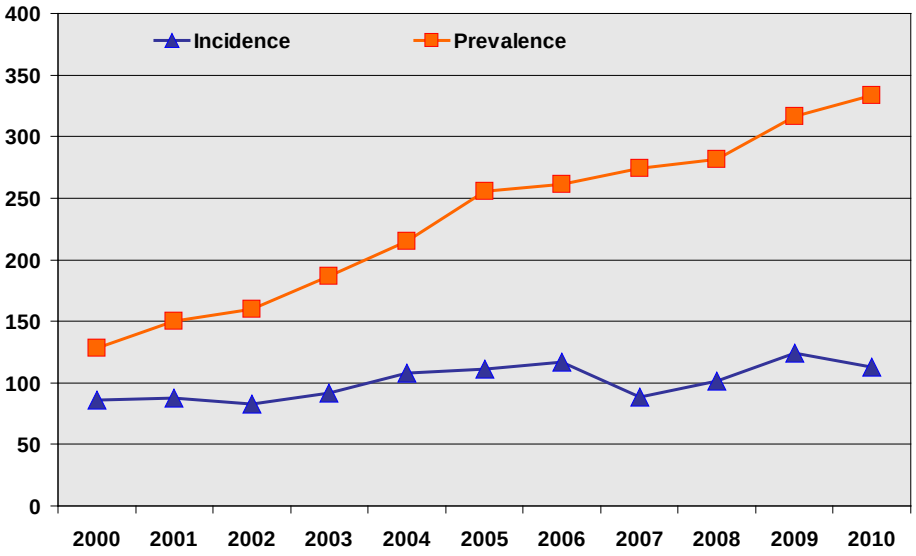
Stroke represents a major threat to the public health worldwide – it is the leading cause of long-term disability and the second most common cause of mortality in adults.

Department of Medicine, University of Auckland, New Zealand

In 2010, cerebrovascular diseases accounted for 44% of all registered cardiovascular diseases. The incidence rate (112.7) was 9% lower, compared to the previous year.

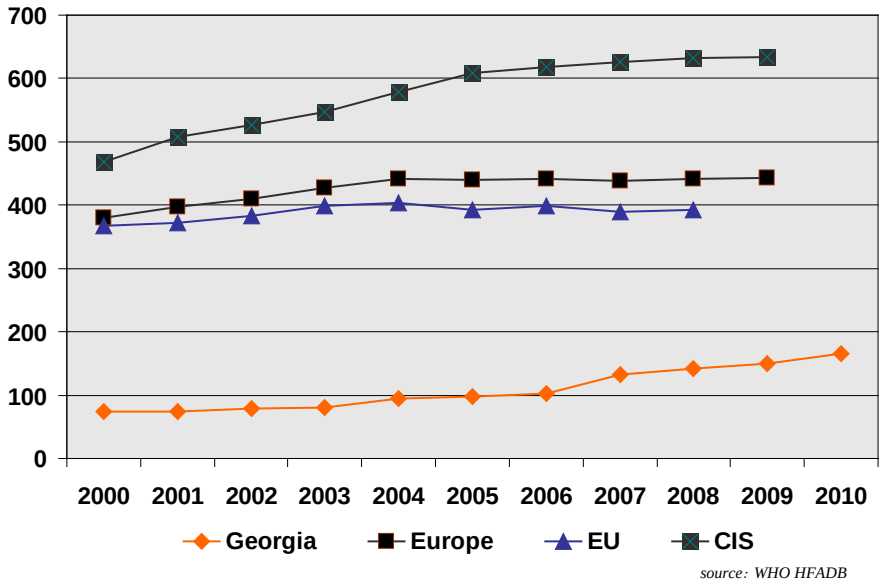
In 2010, there were registered 14 861 cases of cerebrovascular diseases (the prevalence rate -333.7), the prevalence was characterized by an upward trend and increased by 5.1%, compared to 2009 (See Figure 4.15).

Figure 4.15 Cerebrovascular diseases, incidence and prevalence rates per 100 000 population, Georgia



In 2010, 7 383 patients were hospitalized (hospitalization rate – 165.8; this was 11% higher than the in the previous year) (See Figure 4.16-Sesacvlelia dasaxeleba - Cerebrovascular diseases, rate of hospitalization per 100 000 population, Georgia, Europe, EU, CIS). Case fatality rate (15.5) 13.5% lower than the rate of the previous year.

Figure 4.16 Cerebrovascular diseases, hospitalization rate per 100 000 population, Georgia, the European Region, the EU, the CIS

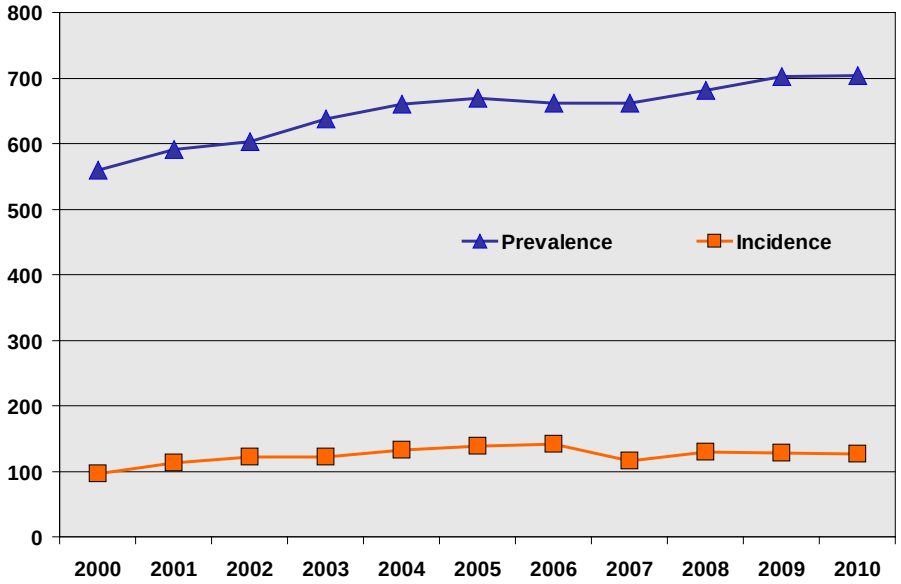


source: WHO HFADB

Malignant neoplasms

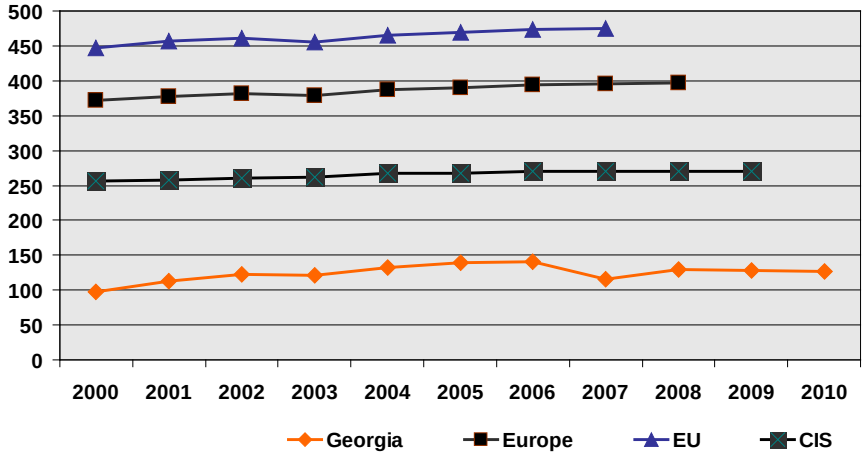
In Georgia, by the end of the reporting year, the total number of registered patients, diagnosed with malignant neoplasms, was 31 370 (prevalence – 1015.3). 5 628 new cases were registered (incidence – 126.4), including 50.9% - in females and 49.1% - in males (See Figure 4.17).

Figure 4.17 Malignant neoplasms, morbidiy indicators, Georgia



The incidence rate is twice lower than in the CIS countries and approximately 4 times lower than in the European Union. The prevalence was twice lower than in the CIS and the EU (See Figure 4.18).

Figure 4.18 Malignant neoplasms, incidence rate per 100 000 population, Georgia, the European Union, the EU, the CIS



source: WHO HFADB

Malignant neoplasms, prevalence rate per 100 population

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Georgia	0.56	0.59	0.61	0.64	0.67	0.67	0.66	0.66	0.68	0.7
Europe	1.31	1.36	1.4	1.43	1.48	1.52	1.55	NA	NA	NA
CIS	1.21	1.24	1.27	1.3	1.33	1.37	1.42	1.43	1.44	1.45

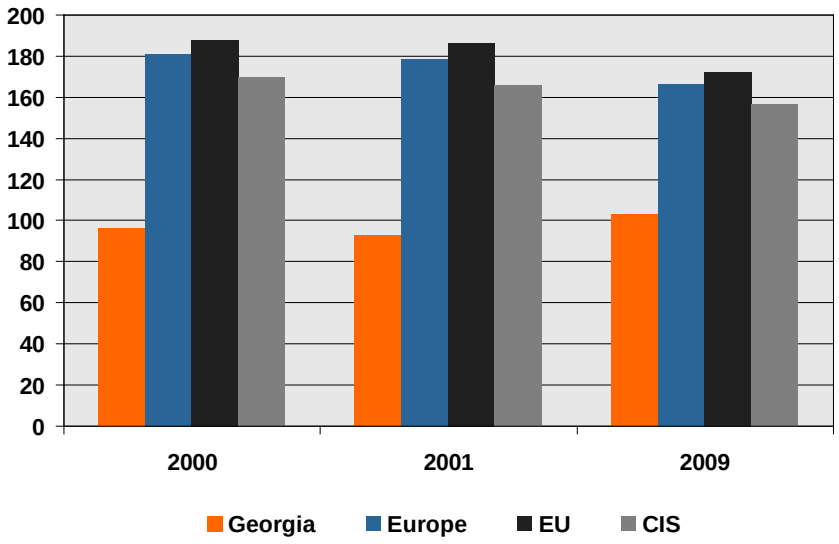
In 2010, in Georgia, there were hospitalized 14 447 patients diagnosed with neoplasms, including 1 003 children. The hospitalization rate accounted to 324.4 per 100 000 population; the rate is three times lower than in the CIS countries and 4 times lower than in the European Union. The general case fatality rate was 2.5, in children - 1.1.

Malignant neoplasms, hospitalization rate per 100 000 population

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Georgia	201.0	197.3	200.5	198.5	217.7	214.5	235.5	254.7	297.3	337.2
Europe	1185.5	1214.3	1256.9	1292.9	1313.6	1310.1	1329.5	1337.6	1355.5	1356.5
European Union	1554.8	1584.2	1610.9	1650.8	1657.5	1641.6	1649.9	1640.1	1661.0	NA
CIS	762.5	786.3	852.8	880.9	918.8	941.8	973.5	983.1	995.1	998.1

In Georgia, standardized death rate from malignant neoplasms was twice lower than in the European region, the European Union and the CIS. This can be attributed to miscoding of the causes of deaths (See Figure 4.19).

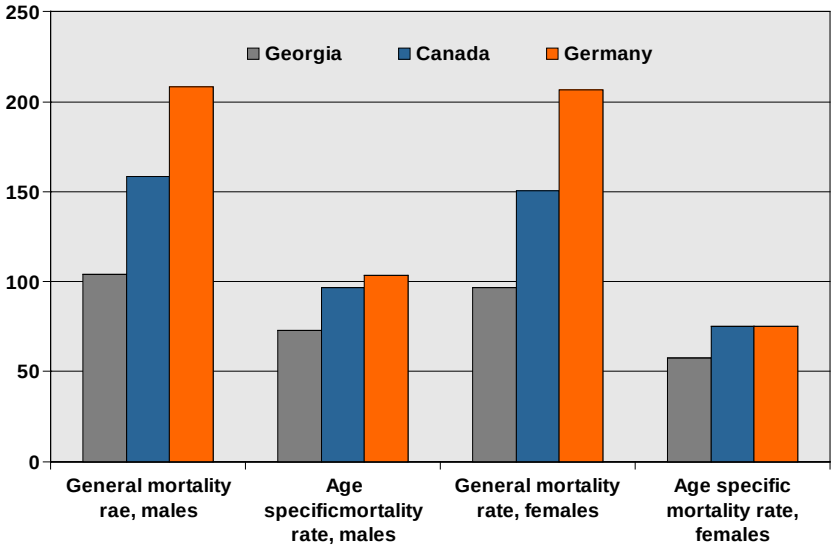
Figure 4.19 **Malignant neoplasms, standardized death rate, Georgia, the European Region, the EU, the CIS**



source: WHO, cancer mortality data base

According to the WHO data, mortality rates from malignant neoplasms in Georgia (general and according age groups) was considerably lower than the relevant rates in developed countries (See Figure 4.20).

Figure 4.20 **Malignant neoplasms, mortality rate, Georgia, Canada, Germany, 2008**

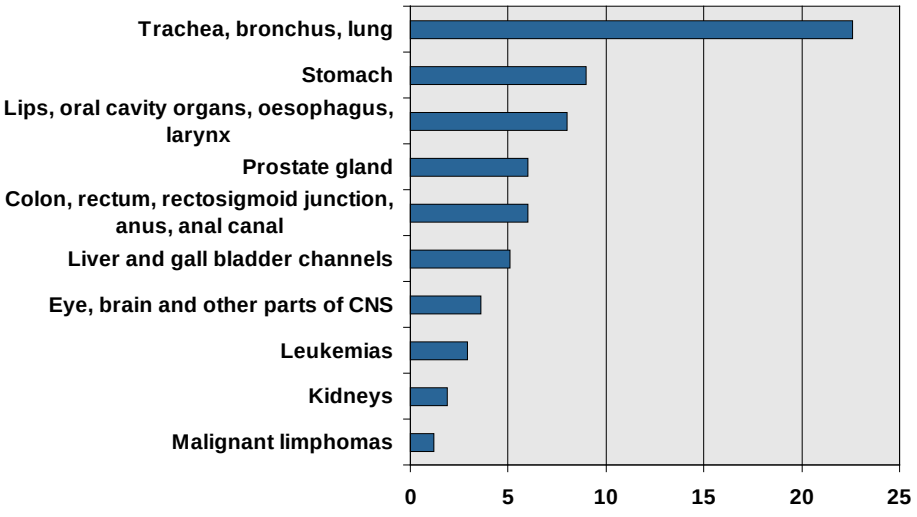


source: WHO, cancer mortality data base

During the reporting year, 12.8% of the cancer patients died, among them 30% within the first year after being diagnosed.

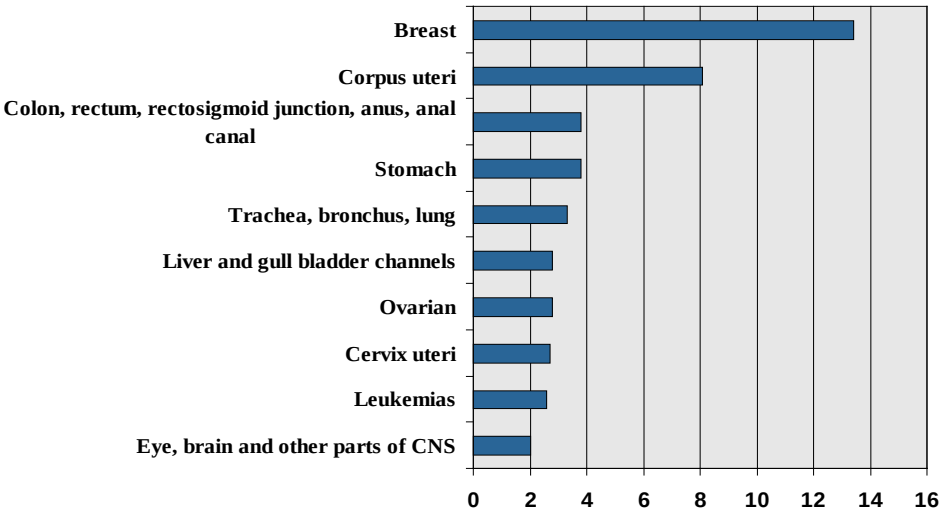
In 2009, Georgia ,according to the WHO, the trachea, bronchus and lung, and stomach malignant neoplasms were leading causes among malignant neoplasms related death in men; whereas breast and uterine neoplasms were leading in women (See Figures 4.21; 4.22).

Figure 4.21 **Top ten causes of deaths among malignant neoplasms related deaths, males, age ajusted rate, Georgia, 2008**



source: WHO, cancer mortality data base

Figure 4.22 **Top ten causes of deaths among malignant neoplasms related deaths, females, age ajusted rate, Georgia, 2008**



source: WHO, cancer mortality data base

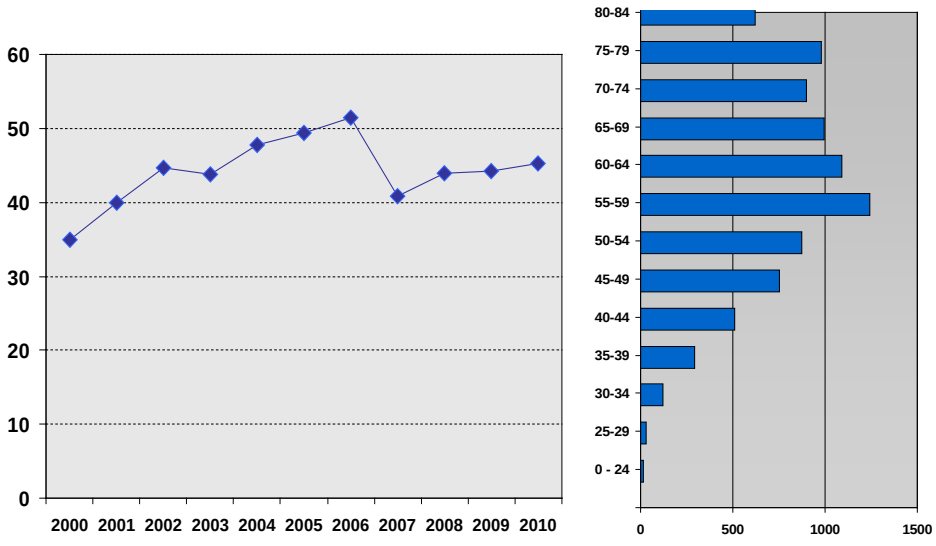
Breast cancer

An estimated 1.38 million new cases of invasive breast cancer were expected to occur among women in 2008. An estimated 458,000 breast cancer deaths in women were expected in 2008. Breast cancer is the top cause of death among women aged 20-59.

Globocan 2008, IARC, 2010

In 2010, in the women with malignant neoplasms the share of breast cancer was 36.8%. By the end of the reporting year, 9 139 patients diagnozed with malignant breast tumor were registered (prevalence - 391.4). 1 055 new cases were registered (incidence – 45.2) (See Figure 4.23).

Figure 4.23 **New cases of breast cancer in females, Georgia**



Incidence

Incidence by age groups 2010

In 2010, new cases of breast cancer were distributed according to the stages as follows: I stage – 6.1%, II stage – 36.5%, III stage - 31.6%, IV stage - 23.3%, unknown stage – 2.6%. Among new cases 17.5% of patients died within the first year after being diagnosed.

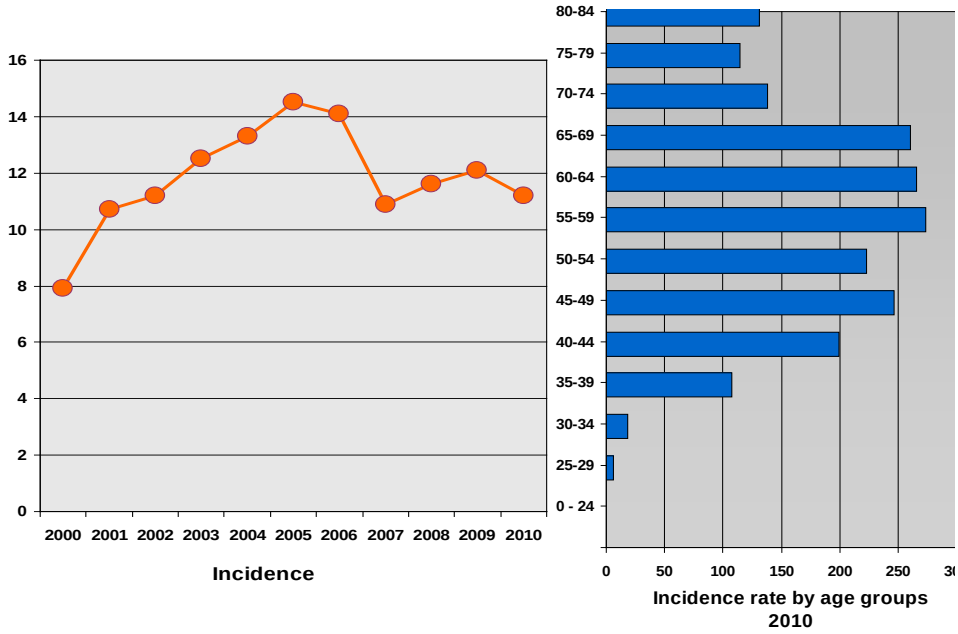
Cervical cancer

Human papillomavirus (HPV) causes cervical cancer which is the second most common cancer in women worldwide by age-standardized incidence rate (ASR). In 2008, there were an estimated 529,000 new cases and 274,00 deaths due to cervical cancer.

Globocan 2008, IARC, 2010

By the end of reporting year, 2449 patients diagnosed with cervical cancer were registered (prevalence – 105.0), including 261 new cases (incidence – 11.2) (See Figure 4.24). The downward trend of the incidence of cervical cancer supposedly is a result of the **Breast and Cervical Cancer Screening Program**, aiming at prevention and detection of breast and cervical cancers. The program has being implemented since 2006.

Figure 4.24 **New cases of cervical cancer, Georgia**



In 2010, new cases of cervical cancer were distributed by stages as follows: I stage – 12.6%, II stage – 29.5%, III stage - 34.9%, IV stage - 19.9%, unknown stage – 3.1%. Among new cases 23.4% of patients died within the first year after being diagnosed.

Trachea, bronchus and lung cancers

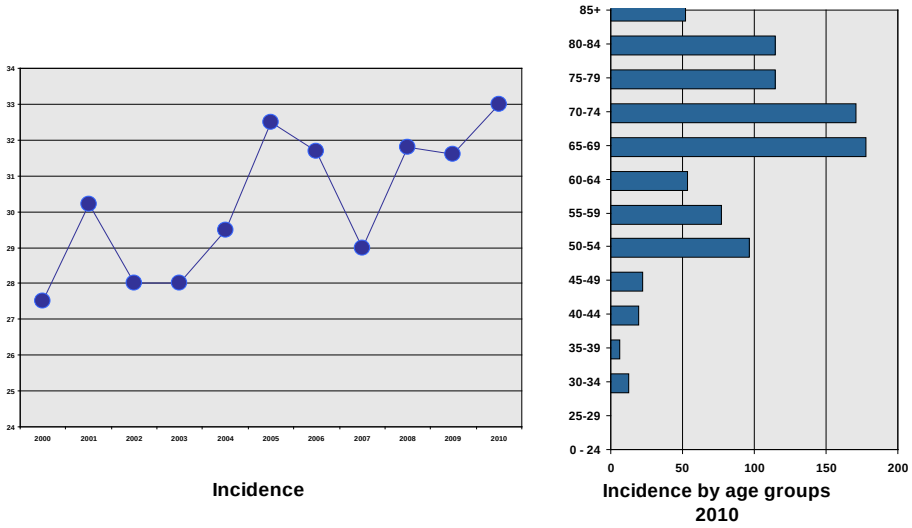
Lung cancer is referred to as the most common malignant tumor. In 2008, lung cancers comprised about 1.4 million deaths worldwide.

Globocan 2008

Trachea, bronchus and lung cancers were registered in 1 532 cases (prevalence – 34.0). In the total number of new cases, 87.8% were males (incidence – 33.0). Among the new cases of cancers in men trachea, bronchus and lung tumors comprised the largest share (25%).

In 2010, new cases of trachea, bronchus and lung malignant tumors were distributed by stages as follows: I stage – 1.1%, II stage – 9.9%, III stage - 14.1%, IV stage - 70.5%, unknown stage – 4.4%. 41.8% of patients died within the first year after being diagnosed with the cancer (See Figure 4.25).

Figure 4.25 New cases of trachea, bronchus and lung cancer, males, Georgia



Diabetes

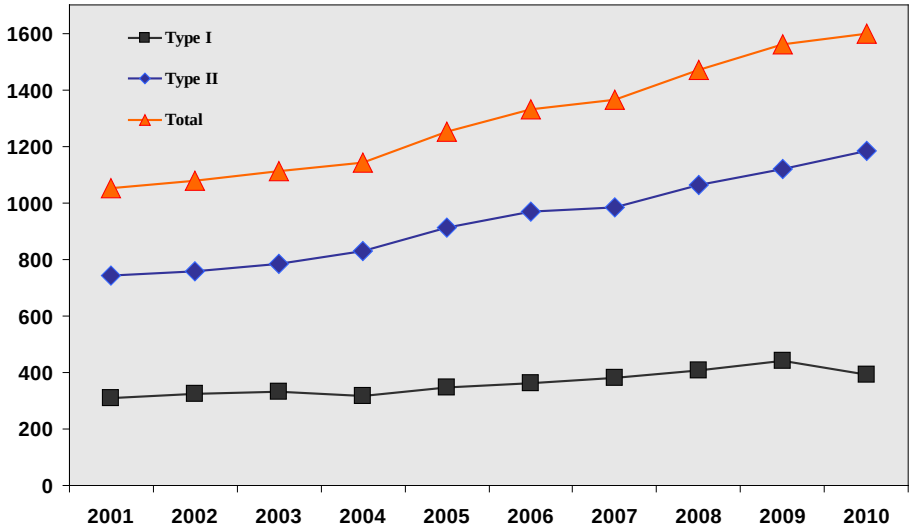
*in 2010, it has been estimated that 285 million people in the worldwide have diabetes. T*his number *is expected to reach 438 million by 2030. More than 80% of diabetes deaths occur in low- and middle-income countries..*

CDC / Atlanta

According to the WHO, in Georgia, in 2000, there were 200 000 cases of diabetes and this number would increase to 223 000 by 2030. During 2005 – 2010, according to the NCDC data, the prevalence of diabetes mellitus has risen 1.4 times (the prevalence of diabetes mellitus type I - 1.3 times, and the prevalence of diabetes mellitus type II - 1.4 times). The following risk-factors are facilitating the rise: inappropriate nutrition, obesity, smoking habit, alcohol abuse, hypertension, glucose intolerance, stress, decreased immune function, etc.

In 2010, in Georgia, there were registered 79 525 cases of diabetes (prevalence – 1 786.0), including 11 026 new cases (incidence – 247.6). 2 894 new cases of insulin-dependent diabetes mellitus (IDDM) (Type 1) were registered (incidence - 65.0), including 35 cases in children (incidence – 4.6). The prevalence rate is approximately 3 times lower than in the European Union, and is within the range of the CIS rates (See Figure 4.26).

Figure 4.26 **Prevalence rates of diabetes mellitus, according to the types of diabetes, Georgia**



58 282 cases of non-insulin-dependent diabetes mellitus (Type II) were registered (prevalence - 1 308.9), including 7565 new cases (incidence – 174.2). 46 cases were registered in children (prevalence - 6.1), including 19 new cases (incidence – 2.5). Since 2009, incidence rate has not changed, prevalence has slightly decreased.

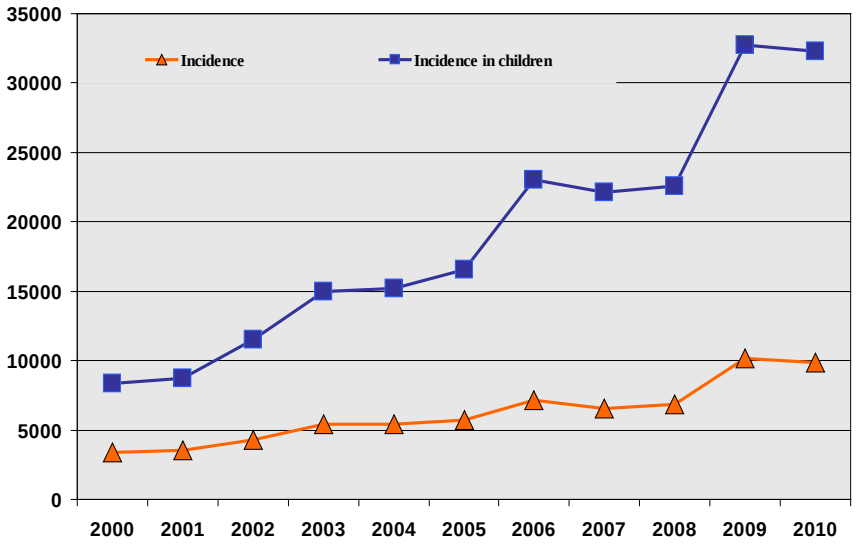
In 2010, 2 093 patients with diabetes mellitus were discharged from in-patient facilities of Georgia (hospitalization rate – 47.0); case fatality rate – 1.9%.

Diseases of the respiratory system

In 2010, respiratory system disease rate was traditionally high. Respiratory system diseases accounted for 63.1% of child morbidity.

A slight decrease in the rate of morbidity related to respiratory system diseases was noted compared to the data of 2009. In total 494 194 cases were registered (the prevalence rate – 11 098.5), including 439 289 new cases (the incidence rate – 9 865.5). 55.6% of the new cases were registered in children. The incidence rate in children remained high and is equal 32 304.7 (See Figure 4.27).

Figure 4.27 Incidence of the respiratory system diseases, Georgia



52 446 patients diagnozed with respiratory system diseases were discharged from in-patient facilities in 2010 (hospitalization rate – 1 177.8, case fatality rate – 1.0%), including 40 963 children (hospitalization rate – 5 414.8, case fatality rate – 1.7%).

Chronic Respiratory Diseases (CRD)

Chronic respiratory diseases (CRD) are characterized by high morbidity and heavy economic burden. Chronic respiratory diseases create serious problems for public healthcare worldwide, especially for developing countries and vulnarable groups of population. Prevalence of chronic respiratory diseases subjected to prevention increses worldwide, particularly, in children and elderly.

The enormous human suffering caused by chronic respiratory diseases was recognized by the Fifty-third World Health Assembly which requested the Director-General of the World Health Organization (WHO) to continue giving priority to the prevention and control of chronic respiratory diseases, with special emphasis on developing countries and other deprived populations, This served as a ground for establishing the WHO Global Allience gainst Chronic Respiratory Diseases (GARD).

WHO, Fifty-Third World Health Assembly

Chronic respiratory diseases (CRD) represent the main group within the class of the respiratory system diseases, which include asthma, allergic diseases of the respiratory system, chronic obstructive pulmonary diseases (COPD), occupational lung diseases and pulmonary hypertension.

Chronic Obstructive Pulmonary Diseases (COPD)

Over 1 billion people suffer from chronic respiratory diseases worldwide, and 4 million people die every year. Around 300 million suffer from asthma, 210 million from chronic obstructive pulmonary disease (COPD) and millions of others from other chronic respiratory diseases, including sleep apnoea syndrome, occupational diseases and pulmonary hypertension.1 In 2005, 250 000 people died of asthma and 3 million of COPD, which is expected to become the third leading cause of death in the world by 2030.

WHO, Fifty-Third World Health Assembly

During the reporting year, the share of chronic obstructive pulmonary diseases accounted to 55.9% (60.4% - in children) of chronic lower respiratory diseases registered in the population of Georgia.

In the group of chronic obstructive pulmonary diseases chronic and unspecified bronchitis comprised 77.4% (prevalence – 424.7, incidence - 168.7). This percent was higher in children and equaled to 84.5% (prevalence – 387.4, incidence - 247.5).

Since 2009, chronic and unspecified bronchitis-related mortality rate has slightly decreased in the total population and in children.

According to the study “Chronic respiratory diseases at primary health care level in Georgia” (WHO, GARD, ARIA), conducted in 2006, in patients with more than a three year history of CRD in 67.4% of the cases the diagnoses of chronic obstructive pulmonary diseases was established, and among them 32% had stage III.

In 2008 – 2009, a pilot study conducted in Georgia by the GARD revealed that the prevalence of chronic obstructive pulmonary diseases was about five times lower according to health statistics, compared to the study findings.

Asthma

Some 235 million people currently suffer from asthma. It is the most common chronic disease among children.

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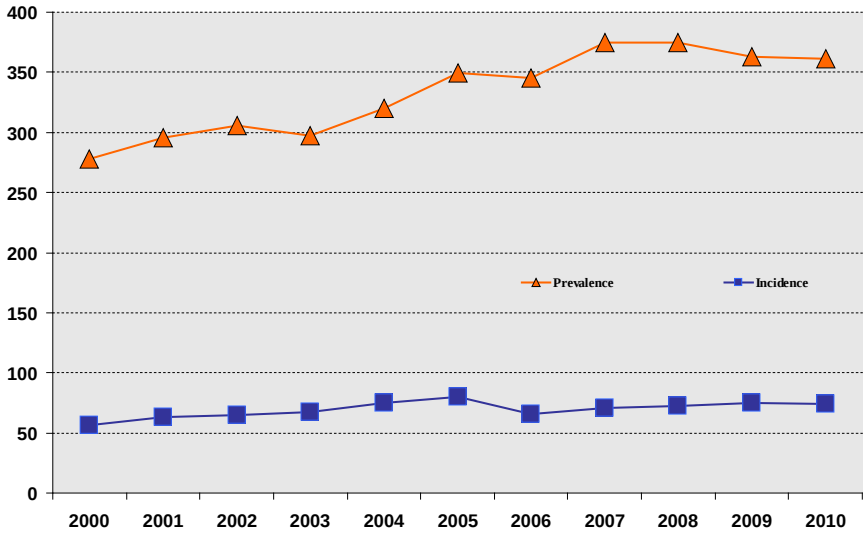
WHO,Fifty-Third World Health Assembly

In 2010, 16 078 cases of asthma and status asthmaticus were registered in Georgia (prevalence rate – 361.1), including 3 285 new cases (incidence rate – 73.8). Compared to 2009, prevalence and incidence rates of asthma and status asthmaticus remained relatively unchanged in the total population. The incidence rate in children was reduced by 10% (See Figure 4.28). The share of asthma comprises 33% of the class of the respiratory system diseases; although, 36.8% of the group of lower respiratory diseases.

Figure 4.28 Asthma and status asthmaticus, morbidity rates, Georgia



According to the study “Chronic respiratory diseases at primary health care level in Georgia” (WHO, GARD, ARIA), conducted in 2006, the share of asthma comprised 4.8% of the group of chronic respiratory diseases. During the study 18.2% of the patients were first time diagnosed as having asthma. A diagnosis of chronic obstructive pulmonary disease was established in 67.4% of cases, among them 32.2% had stage III.

In 2008-2009, the pilot survey, implemented by the GARD in Georgia, found that official data on the prevalence rate of asthma was close to the study findings (Figure 4.29). In 2010, according to health statistics, prevalence rate of asthma is equal 361.1; incidence rate of asthma - 73.8.

Figure 4.29 Comparision of CRD survey data and routine statistics data, rates per 100 000 population, Georgia, 2008-2009

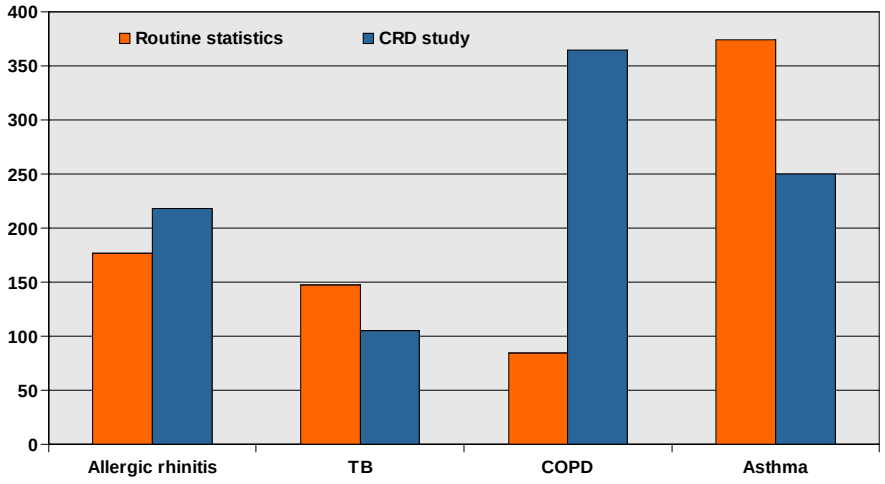


Table 4.31 Neoplasms, morbidity, Georgia, 2000 – 2010

	Total				Children aged 0-15			
	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence
2000	26415	597.9	5658	128.1	194	16.5	68	7.4
2001	29590	674.7	6927	157.4	222	21.0	93	10.2
2002	31225	716.6	7092	162.2	267	23.5	110	12.0
2003	32109	741.7	7117	164.4	269	24.3	123	13.4
2004	34858	807.2	8347	190.9	340	31.6	147	16.0
2005	36165	829.2	8364	191.3	405	40.9	166	21.0
2006	39063	888.2	9186	208.9	442	63.6	132	16.9
2007	40219	917.4	7445	169.7	433	68.2	111	14.5
2008	41748	952.3	7886	179.9	387	66.6	148	19.7
2009	44465	1008.1	13001	294.7	315	54.7	156	20.7
2010	45210	1015.3	**11685**	**262.4**	**236**	**40.9**	**124**	**16.4**

Table 4.32 Malignant neoplasms, morbidity, Georgia, 2000 – 2010

	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence
2000	24816	561.7	4292	97.1
2001	25991	592.6	4974	113.4
2002	26374	605.3	5332	122.4
2003	27610	637.8	5251	121.3
2004	28853	668.2	5726	132.6
2005	29241	670.4	6045	138.6
2006	29104	661.8	6200	141.0
2007	29065	663.0	5059	115.4
2008	29875	681.5	5658	129.1
2009	30954	701.8	5656	128.2
2010	**31370**	**704.5**	**5628**	**126.4**

Table 4.33 Malignant neoplasms, morbidity according to the regions, Georgia, 2010

	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence
Abkhazia	231	--	78	--
Ajara	4019	1034.0	634	163.1
Tbilisi	6646	574.2	1184	102.3
Kakheti	3937	971.4	561	138.4
Imereti	4782	680.8	884	125.9
Samegrelo and Zemo Svaneti	2318	487.4	660	138.8
Shida Kartli	3977	1275.5	403	129.2
Kvemo Kartli	2374	472.2	571	113.6
Guria	1034	738.0	199	142.0
Samtskhe–Javakheti	1081	509.9	220	103.8
Mtskheta–Mtianeti	682	625.1	134	122.8
Racha–Lechkhumi and Kvemo Svaneti	289	608.4	100	210.5
Georgia	**31370**	**704.5**	**5628**	**126.4**

Table 4.34 Malignant neoplasms, new cases according sex and tumor localization, Georgia, 2009 – 2010

Localization	2009				2010			
	Female		Male		Female		Male	
	Number of new cases	% from the total number of new cases	Number of new cases	% from the total number of new cases	Number of new cases	% from the total number of new cases	Number of new cases	% from the total number of new cases
Total	**2962**	**100**	**2694**	**100**	**2868**	**100**	**2760**	**100**
	Including							
Lips, oral cavity organs and pharynx	38	1.3	114	4.2	37	1.3	119	4.3
Digestive organs	554	18.7	716	26.6	532	18.5	681	24.7
Respiratory and intrathoracic organs	145	4.9	853	31.7	108	3.8	895	32.4
Bone and articular cartilage	34	1.1	58	2.2	13	0.5	42	1.5
Skin	122	4.1	121	4.5	134	4.7	139	5.0
Mesothelial and soft tissue	33	1.1	39	1.4	33	1.2	32	1.2
Breast	1023	34.5	6	0.2	1055	36.8	2	0.1
Genital organs	665	22.5	290	10.8	615	21.4	307	11.1
Urinary tract	54	1.8	181	6.7	60	2.1	224	8.1
Eyes, brain and other parts of central nervous system organs	64	2.2	84	3.1	62	2.2	74	2.7
Thyroid and other endocrine glands	45	1.5	13	0.5	46	1.6	22	0.8
Lymphoid, haematopoietic and related tissue	71	2.4	94	3.5	100	3.5	116	4.2
Ill-defined, secondary and unspecified sites	114	3.8	125	4.6	73	2.5	107	3.9

Table 4.35 Incidence of malignant tumors according to tumor localization and sex of patients, Georgia, 2009 – 2010

Localization	2009				2010			
	Female		Male		Female		Male	
	Number of new cases	% from the total number of new cases	Number of new cases	% from the total number of new cases	Number of new cases	% from the total number of new cases	Number of new cases	% from the total number of new cases
Total	**2962**	**127.9**	**2694**	**128.6**	**2868**	**122.8**	**2760**	**130.3**
	Including							
Lips, oral cavity organs and pharynx	38	1.6	114	5.4	37	1.6	119	5.6
Digestive organs	554	23.9	716	34.2	532	22.8	681	32.2
Respiratory and intrathoracic organs	145	6.3	853	40.7	108	4.6	895	42.3
Bone and articular cartilage	34	1.5	58	2.8	13	0.6	42	2.0
Skin	122	5.3	121	5.8	134	5.7	139	6.6
Mesothelial and soft tissue	33	1.4	39	1.9	33	1.4	32	1.5
Breast	1023	44.2	6	0.3	1055	45.2	2	0.1
Genital organs	665	28.7	290	13.8	615	26.3	307	14.5
Urinary tract	54	2.3	181	8.6	60	2.6	224	10.6
Eyes, brain and other parts of central nervous system organs	64	2.8	84	4.0	62	2.7	74	3.5
Thyroid and other endocrine glands	45	1.9	13	0.6	46	2.0	22	1.0
Lymphoid, haematopoietic and related tissue	71	3.1	94	4.5	100	4.3	116	5.5
Ill-defined, secondary and unspecified sites	114	4.9	125	6.0	73	3.1	107	5.1

Table 4.36 Malignant neoplasms, new cases according to stages (%), Georgia, 2006 – 2010

	I stage	II stage	III stage	IV stage	Unknown
2006	4.7	25.7	22.0	43.3	4.3
2007	4.1	21.5	23.2	45.1	6.0
2008	6.0	21.5	23.2	45.1	4.1
2009	4.8	17.6	23.9	48.0	5.7
2010	**4.5**	**20.5**	**25.1**	**45.0**	**4.9**

Table 4.37 Breast cancer, new cases according to stages (%), Georgia, 2006 – 2010

	I stage	II stage	III stage	IV stage	Unknown
2006	7.8	42.0	23.5	25.8	1.0
2007	5.7	39.6	25.2	26.8	4.0
2008	7.4	39.7	25.4	24.0	3.4
2009	7.1	32.0	29.3	28.5	3.2
2010	**6.1**	**36.5**	**31.6**	**23.3**	**2.6**

Table 4.38 Cervix uteri cancer, new cases according to stages (%), Georgia, 2006 – 2010

	I stage	II stage	III stage	IV stage	Unknown
2006	11.0	38.8	23.2	24.8	2.2
2007	11.5	34.5	27.3	24.2	2.5
2008	12.4	36.0	22.1	25.1	4.5
2009	10.7	25.3	29.5	30.6	3.9
2010	**12.6**	**29.5**	**34.9**	**19.9**	**3.1**

Table 4.39 Stomach cancer, new cases according to stages (%), Georgia, 2006 – 2010

	I stage	II stage	III stage	IV stage	Unknown
2006	0.2	13.8	20.9	61.2	3.8
2007	0.8	12.7	22.6	59.4	4.4
2008	1.3	10.9	19.7	63.7	4.5
2009	1.3	10.6	19.4	64.9	3.7
2010	**1.7**	**9.6**	**21.2**	**62.3**	**5.1**

Table 4.40 Trachea, bronchus and lung cancer, new cases according to stages (%) Georgia, 2006 – 2010

	I stage	II stage	III stage	IV stage	Unknown
2006	0.7	9.6	18.7	69.2	1.8
2007	0.4	6.4	21.6	68.1	3.5
2008	0.8	8.4	19.8	67.1	3.9
2009	1.5	6.4	16.5	70.9	4.7
2010	**1.1**	**9.9**	**14.1**	**70.5**	**4.4**

Table 4.41 Prostate cancer, new cases according to stages (%), Georgia, 2002 – 2010

	I stage	II stage	III stage	IV stage	Unknown
2002	16.0		20.7	63.3	0.0
2006	2.2	17.5	18.9	59.6	1.8
2007	0.5	18.3	23.7	53.8	3.8
2008	0.5	15.1	18.5	60.5	5.4
2009	0.9	11.3	20.7	61.3	5.9
2010	3.1	14.6	24.4	55.5	2.4

Table 4.42 Rectum, rectosigmoid junction, anus, anal canal cancer, new cases according to stages (%), Georgia, 2002, 2006 – 2010

	I stage	II stage	III stage	IV stage	Unknown
2002	14.2		31.9	53.8	0.0
2006	0.7	18.5	29.6	47.0	4.2
2007	0.8	21.3	27.3	46.4	4.1
2008	2.9	15.3	26.8	49.6	5.5
2009	1.8	15.5	28.5	48.2	6.0
2010	3.1	17.6	29.5	44.2	5.7

Table 4.43 Breast cancer in women, Georgia, 2003 – 2010

	2003	2004	2005	2006	2007	2008	2009	2010
Number of new cases	**1007**	**1116**	**1156**	**1211**	**952**	**1015**	**1023**	**1055**
Incidence rate per 100000 females	*43.8*	*47.8*	*49.4*	*51.5*	*40.9*	*43.7*	*44.2*	*45.2*
Number of cases enrolled by the end of the year	**7614**	**7892**	**8174**	**8393**	**8448**	**8655**	**9019**	**9139**
Prevalence rate per 100 000 females by the end of the year	329.6	341.7	353.9	363.4	366.0	375.3	389.4	391.4
Number of deaths	**626**	**719**	**677**	**595**	**602**	**617**	**628**	**613**
Mortality rate per 100 000 females	*27.1*	*31.1*	*29.3*	*25.8*	*26.1*	*26.8*	*27.1*	*25.3*
% of deaths of the total number of cases registered during the year	*7.6*	*8.2*	*7.5*	*6.3*	*6.4*	*6.5*	*6.4*	*6.2*
Number of deaths within a year of patients' first diagnoses	**251**	**227**	**194**	**256**	**220**	**186**	**224**	**185**
% of deaths within a year of patients' first diagnoses	*24.1*	*22.5*	*17.4*	*22.1*	*18.2*	*19.5*	*21.9*	*17.5*

Table 4. 44 Cervix uteri cancer, Georgia, 2003 - 2010

	2003	2004	2005	2006	2007	2008	2009	2010
Number of new cases	**285**	**308**	**334**	**327**	**252**	**267**	**281**	**261**
Incidence per 100000 females	*12.5*	*13.3*	*14.5*	*14.1*	*10.9*	*11.6*	*12.1*	11.2
Number of cases registered by the end of the year	**2306**	**2388**	**2374**	**2378**	**2372**	**2398**	**2464**	**2449**
Prevalence at the end of the year per 100 000 female	*100.7*	*104.6*	*103.2*	*102.7*	*102.7*	*104.1*	*106.4*	*105.0*
Number of deaths	**197**	**201**	**249**	**215**	**197**	**203**	**230**	**186**
Mortality rate per 100 000 female	*8.5*	*8.8*	*10.8*	*9.3*	*8.5*	*8.8*	*9.9*	*8.0*
% of deaths of the total number of cases registered during the year	*7.8*	*7.7*	*9.2*	*8.0*	*7.5*	*7.7*	*8.4*	*6.9*
Number of deaths within a year of patients' first diagnoses	**80**	**74**	**94**	**91**	**84**	**71**	**86**	**61**
% of deaths within a year of patients' first diagnoses	*30.9*	*26.0*	*30.5*	*27.2*	*25.7*	*28.2*	*30.6*	*23.4*

Table 4.45 Cervix uteri cancer, new cases according to regions, Georgia, 2000 – 2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Abkhazia	5	2	2	5	4	6	5	2	4	6	8
Ajara	11	18	14	26	25	27	24	17	19	25	20
Tbilisi	45	68	80	74	70	70	81	71	72	56	52
Kakheti	14	23	19	38	31	28	45	23	29	36	24
Imereti	30	37	42	34	37	48	42	30	40	34	37
Samegrelo	17	22	24	15	28	35	35	33	29	36	42
Shida Kartli	19	25	27	28	24	36	19	19	18	35	25
Kvemo Kartli	14	17	18	19	41	39	24	27	31	20	21
Guria	10	8	9	8	12	16	14	9	5	8	7
Samtskhe–Javakheti	14	15	13	21	11	14	14	8	9	13	16
Mtskheta–Mtianeti	4	7	7	10	17	14	19	12	10	8	8
Racha–Lechkhumi and Kvemo Svaneti	2	2	2	5	6	1	5	1	1	4	1
Departments other than the MoLHSA	1	5	2	2	2	0	0	0	0	0	0
Georgia	**186**	**249**	**259**	**285**	**308**	**334**	**327**	**252**	**267**	**281**	**261**

Table 4.46 Cervix uteri cancer, cases registered by the end of the year according to regions, Georgia, 2000 – 2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Abkhazia	4	0	0	9	8	11	11	10	9	14	19
Ajara	126	140	142	158	164	141	153	163	169	179	184
Tbilisi	622	620	542	568	563	576	559	559	560	555	543
Kakheti	204	239	221	262	266	238	262	256	273	334	281
Imereti	409	405	382	375	385	377	392	386	375	373	356
Samegrelo	180	191	193	179	191	209	211	215	222	195	203
Shida Kartli	215	210	214	231	234	257	263	270	277	296	307
Kvemo Kartli	183	192	200	201	225	240	228	218	233	236	272
Guria	80	77	82	88	109	107	92	90	89	93	94
Samtskhe–Javakheti	94	98	106	120	109	102	91	95	98	101	102
Mtskheta–Mtianeti	68	72	70	74	95	98	101	94	79	69	72
Racha–Lechkhumi and Kvemo Svaneti	14	15	23	25	24	18	15	16	14	19	16
Departments other than the MoLHSA	18	21	18	16	15	0	0	0	0	0	0
Georgia	**2217**	**2280**	**2193**	**2306**	**2388**	**2374**	**2378**	**2372**	**2398**	**2464**	**2449**

Table 4.47 Corpus uteri cancer, new cases according to regions, Georgia, 2000 – 2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Abkhazia	4	0	0	1	1	3	3	3	2	0	3
Ajara	13	19	12	13	28	31	28	23	19	17	17
Tbilisi	54	50	79	68	49	72	69	44	49	40	29
Kakheti	8	9	15	24	15	16	15	14	13	21	18
Imereti	25	34	34	31	47	47	61	29	34	29	26
Samegrelo	15	19	23	28	25	27	32	17	15	10	9
Shida Kartli	5	8	25	11	11	17	16	13	15	7	6
Kvemo Kartli	11	13	13	18	21	13	16	18	14	16	23
Guria	6	5	6	7	8	13	12	9	7	2	5
Samtskhe–Javakheti	6	5	5	6	9	9	15	12	6	7	11
Mtskheta–Mtianeti	4	2	5	5	7	10	12	12	10	9	5
Racha–Lechkhumi and Kvemo Svaneti	1	0	4	3	5	3	2	3	9	6	4
Departments other than the MoLHSA	4	1	2	4	3	0	0	0	0	0	0
Georgia	**156**	**165**	**223**	**219**	**229**	**261**	**281**	**197**	**193**	**164**	**156**

Table 4.48 Corpus uteri cancer, cases registered by the end of the year according to regions, Georgia, 2000 – 2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Abkhazia	4	2	2	3	2	4	7	11	9	9	9
Ajara	103	106	118	128	150	159	180	193	200	210	215
Tbilisi	451	441	455	477	457	483	488	480	471	469	454
Kakheti	128	131	133	151	157	163	168	160	162	197	178
Imereti	200	208	197	215	230	250	281	271	265	262	260
Samegrelo	102	115	124	143	156	176	189	141	150	121	115
Shida Kartli	99	100	117	130	134	146	155	163	174	171	173
Kvemo Kartli	54	61	65	72	83	85	75	81	91	104	110
Guria	44	44	49	51	63	64	50	51	49	48	52
Samtskhe–Javakheti	28	31	35	34	40	48	49	54	57	63	72
Mtskheta–Mtianeti	41	44	41	46	47	52	59	60	59	56	54
Racha–Lechkhumi and Kvemo Svaneti	1	1	5	9	18	16	19	20	25	25	25
Departments other than the MoLHSA	10	10	10	12	20	0	0	0	0	0	0
Georgia	**1265**	**1294**	**1351**	**1471**	**1557**	**1646**	**1720**	**1685**	**1712**	**1735**	**1717**

Table 4.49 Breast cancer, new cases according to regions Georgia, 2000 – 2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Abkhazia	13	5	11	8	20	57	11	12	12	8	21
Ajara	76	78	75	82	79	93	95	94	106	79	111
Tbilisi	253	319	360	319	325	394	423	282	312	310	247
Kakheti	66	75	102	91	121	82	87	97	82	112	119
Imereti	147	163	159	147	187	178	178	177	182	163	162
Samegrelo	63	57	85	88	74	85	85	61	71	86	104
Shida Kartli	60	64	80	86	107	68	95	69	71	91	95
Kvemo Kartli	55	59	67	70	91	99	115	76	69	70	92
Guria	29	32	27	29	29	26	36	27	38	18	26
Samtskhe–Javakheti	24	45	35	34	36	31	41	25	32	41	36
Mtskheta–Mtianeti	22	18	17	21	22	24	29	21	25	33	22
Racha–Lechkhumi and Kvemo Svaneti	9	12	16	24	19	19	16	11	15	18	20
Departments other than the MoLHSA	2	10	6	8	6	0	0	0	0	0	0
Georgia	**819**	**937**	**1040**	**1007**	**1116**	**1156**	**1211**	**952**	**1015**	**1029**	**1055**

Table 4.50 Breast cancer, cases registered by the end of the year, Georgia, 2000 – 2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Abkhazia	13	4	10	16	20	75	78	86	75	74	68
Ajara	567	608	657	701	737	764	816	850	841	871	942
Tbilisi	2136	2139	2125	2227	2235	2422	2439	2430	2486	2583	2548
Kakheti	713	830	890	941	1012	1002	1047	1096	1133	1225	1109
Imereti	1146	1187	1161	1196	1264	1317	1377	1396	1407	1442	1464
Samegrelo	417	462	488	529	526	552	583	537	564	575	606
Shida Kartli	533	620	663	710	737	737	807	841	892	938	976
Kvemo Kartli	386	420	442	462	505	545	514	504	532	551	618
Guria	206	206	222	231	272	262	240	238	252	250	268
Samtskhe–Javakheti	191	211	223	233	231	230	230	224	224	246	259
Mtskheta–Mtianeti	179	178	184	200	174	179	185	179	174	182	188
Racha–Lechkhumi and Kvemo Svaneti	48	58	72	80	87	89	77	67	75	82	93
Departments other than the MoLHSA	87	91	93	88	92	0	0	0	0	0	0
Georgia	**6682**	**7014**	**7230**	**7614**	**7892**	**8174**	**8393**	**8448**	**8655**	**9019**	**9139**

Table 4.51 Trachea, bronchus and lung cancer, new cases in males according to regions, Georgia, 2002 – 2010

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ajara	38.6	26.5	30.4	36.4	32.3	42.7	34.6	43.2	50.8
Tbilisi	25.0	25.8	30.7	33.4	29.5	24.1	20.7	22.5	26.0
Kakheti	20.5	24.1	19.0	23.1	34.0	26.5	29.1	32.7	21.3
Imereti	37.7	35.6	34.4	40.7	33.7	35.0	36.8	33.8	33.2
Samegrelo and Zemo Svaneti	38.2	40.2	37.8	39.6	41.3	28.3	41.6	48.6	49.5
Shida Kartli	29.1	19.0	18.5	24.5	23.8	20.2	27.0	17.5	26.3
Kvemo Kartli	11.6	15.8	20.3	20.3	17.0	20.0	22.1	21.7	28.0
Guria	41.7	38.7	41.7	41.7	74.3	52.6	73.7	40.6	48.1
Samtskhe Javakheti	17.9	20.9	19.9	19.9	21.7	17.8	23.8	23.8	19.8
Mtskheta–Mtianeti	13.3	13.3	26.5	19.9	19.8	19.3	29.0	32.8	34.7
Racha–Lechkhumi and Kvemo Svaneti	16.7	49.9	29.1	41.6	25.3	40.1	66.9	66.9	49.1
Georgia	28.0	27.8	29.5	32.6	31.7	28.5	31.2	31.3	33.0

Table 4.52 Digestive system cancer, morbidity rates, Georgia, 2009 – 2010

	2009				2010			
	Number of new cases	Incidence	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence	Number of cases registered by the end of the year	Prevalence
Total:	**1270**	**28.8**	**3301**	**74.8**	**1213**	**27.2**	**3398**	**76.3**
including								
Esophagus	36	0.8	111	2.5	40	0.9	97	2.2
Stomach	388	8.8	1051	23.8	398	8.9	1074	24.1
Colon	155	3.5	652	14.8	133	3.0	684	15.4
Rectum, rectosigmoid junction, anal canal	231	5.2	911	20.7	254	5.7	958	21.5
Liver and gull bladder channels	257	5.8	279	6.3	201	4.5	276	6.2
Pancreatic	166	3.8	218	4.9	146	3.3	211	4.7

Table 4.53 Number of patients dying within a year of their first diagnoses with cancer, Georgia, 2002 – 2010

	Number of new cases	Number of deaths	% of deaths from the total number of new cases
2002	5332	2209	41.4
2003	5251	2125	40.5
2004	5726	2177	38.0
2005	6045	2068	34.2
2006	6200	2306	37.2
2007	5066	2022	39.9
2008	5662	2007	35.4
2009	5656	2024	35.8
2010	**5628**	**1737**	**30.9**

Table 4.54 Cancer patients survived 5 and more years after disease was diagnosed, Georgia, 2009 – 2010

Localization	2009			2010		
	Total number of cases registered by the end of the year	Number of patients with enrollment history of 5+ years	% of patients with enrollment history of 5+ years of the total number of patients	Total number of cases registered by the end of the year	Number of patients with enrollment history of 5+ years	% of patients with enrollment history of 5+ years of the total number of patients
Total	**30954**	**13126**	**42.4**	**31370**	**12855**	**41.0**
Including						
Lips, oral cavity organs and pharynx	1163	557	47.9	1152	500	43.4
Digestive system organs	3301	872	26.4	3398	850	25.0
Respiratory and thoracic organs	2879	979	34.0	2991	959	32.1
Bone and articular cartilage	404	136	33.7	385	144	37.4
Skin	3106	1516	48.8	3087	1517	49.1
Mesothelial and soft tissue	382	137	35.9	395	137	34.7
Breast	9019	4742	52.6	9139	4635	50.7
Female genital organs	5465	2336	42.7	5424	2304	42.5
Male genital organs	1180	462	39.2	1216	466	38.3
Urinary tract	1267	426	33.6	1309	372	28.4
Eyes, brain and other central nervous system organs	505	98	19.4	540	111	20.6
Thyroid and other endocrine glands	396	150	37.9	416	171	41.1
Ill-defined, secondary and unspecified sites	254	34	13.4	268	29	10.8
Lymphoid, haematopoietic and related tissue	1633	681	41.7	1650	660	40.0

Table 4.55 Data on special treatments of malignant neoplasms, Georgia, 2006 – 2010

	2006	2007	2008	2009	2010
Number of clinical group II* patients, registered	**3020**	**2253**	**2589**	**2525**	**2706**
The course of treatment completed	2436	1684	2005	2130	2215
Including the following methods of treatment:					
Surgical	818	571	776	791	758
Radiotherapy	226	148	270	212	256
medication	240	193	252	334	379
Combined	1025	684	617	710	735

* *Clinical group II includes cancer patients who need special treatment (surgery, radiotherapy, chemotherapy, etc.).*

Table 4.56 Cancer, hospital discharges of and case fatality rate, Georgia, 2009 – 2010

	2009			2010		
	Number of hospital discharges	Number of deaths	Case fatality rate (%)	Number of hospital discharges	Number of deaths	Case fatality rate (%)
Ajara	941	21	2.2	1006	24	2.3
Tbilisi	11900	253	2.1	11151	286	2.5
Kakheti	91	11	12.1	89	7	7.3
Imereti	1544	35	2.3	1566	18	1.1
Samegrelo and Zemo Svaneti	53	3	5.7	27	9	25.0
Shida Kartli	37	3	8.1	25	3	10.7
Kvemo Kartli	106	6	5.7	67	4	5.6
Guria	9	1	11.1	26	2	7.1
Samtskhe–Javakheti	37	1	2.7	7	0	0
Mtskheta–Mtianeti	6	0	0	0	0	0
Racha–Lechkhumi and Kvemo Svaneti	3	0	0	0	0	0
Departments other than the MoLHSA	145	1	0.7	129	1	0.8
Georgia	**14872**	**335**	**2.3**	**14093**	**354**	**2.5**

Table 4.57 Hospital discharges of and case fatality rate, cancer in children under the age of 15 years, Georgia, 2009 - 2010*

	2009			2010		
	Number of hospital discharges	Number of deaths	Case fatality rate (%)	Number of hospital discharges	Number of deaths	Case fatality rate (%)
Ajara	29	2	6.9	25	0	0.0
Tbilisi	877	13	1.5	964	11	1.1
Imereti	1	0	0.0	3	0	0.0
Samegrelo	1	0	0.0	0	0	0.0
Samtskhe–Javakheti	20	0	0.0	0	0	0.0
Georgia	**928**	**15**	**1.6**	**992**	**11**	**1.1**

* *No cases of hospitalization of cancer patients under the age of 15 years were registered in the rest of the regions.*

Table 4.58 Diseases of blood and blood-forming organs, morbidity rates, Georgia, 1998 – 2010

	All ages				Children aged 0-15			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
1988	11423	211.7	4061	75.2	**9691**	757.8	3818	277.4
1990	10688	197.0	3311	61.1	**8872**	693.3	2932	216.3
1995	8788	183.3	3499	67.8	6719	675.2	2563	207.0
1996	9827	210.2	4978	97.5	6857	723.1	3218	262.6
2000	13189	296.2	6784	152.4	5576	613.0	2909	319.8
2001	16330	371.0	8511	193.4	6966	753.6	3826	413.9
2002	16442	376.1	7730	176.8	7469	815.4	4022	439.1
2003	14695	339.5	7400	170.9	7072	836.4	3700	437.6
2004	16175	370.0	8605	196.8	8233	898.9	4848	529.3
2005	16305	373.0	8505	194.6	8651	944.5	4955	541.0
2006	17048	387.6	9397	213.7	7624	959.6	4391	552.7
2007	19030	433.6	10264	233.9	7975	1039.5	4854	632.7
2008	19546	445.9	11672	266.3	8501	1130.2	5686	755.9
2009	25064	568.2	17653	400.2	12414	1648.8	10285	1366.1
2010	**23535**	**528.5**	**17378**	**390.3**	**11977**	**1580.1**	**10072**	**1328.8**

Table 4.59 Diseases of blood and blood-forming organs according to regions, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	1941	--	870	--	1377	--	740	--
Ajara	3188	828,9	2331	606,1	3109	799,8	2249	578,6
Tbilisi	3288	287.1	1871	163.3	2002	173.0	1365	117.9
Kakheti	2130	528.4	1540	382.0	2099	517.9	1525	376.3
Imereti	4834	693.4	3590	515.0	4864	692.5	3696	526.2
Samegrelo	2645	561.6	1977	419.7	2893	608.3	2035	427.9
Shida Kartli	1613	522.0	1235	399.7	1679	538.5	1424	456.7
Kvemo Kartli	1861	375.4	1518	306.2	1632	324.6	1324	263.3
Guria	1791	1285.7	1540	1105.5	1956	1396.1	1677	1197.0
Samtskhe–Javakheti	890	424.4	548	261.3	934	440.6	607	286.3
Mtskheta–Mtianeti	503	464.5	423	390.6	581	532.5	457	418.9
Racha–Lechkhumi and Kvemo Svaneti	309	647.8	152	318.7	337	709.5	212	446.3
Departments other than the MoLHSA	71	--	58	--	72	--	67	--
Georgia	**25064**	**568.2**	**17653**	**400.2**	**23535**	**528.5**	**17378**	**390.3**

Table 4.60 Diseases of blood and blood-forming organs in children, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	884	--	474	--	587	--	386	--
Ajara	1703	2592.1	1495	2275.5	1715	2598.5	1464	2218.2
Tbilisi	993	507.9	817	417.9	678	344.7	535	272.0
Kakheti	1062	1543.6	856	1244.2	1100	1596.5	922	1338.2
Imereti	2814	2364.7	2412	2026.9	2592	2172.7	2210	1852.5
Samegrelo	1180	1467.7	983	1222.6	1382	1710.4	1145	1417.1
Shida Kartli	818	1552.2	679	1288.4	762	1437.7	676	1275.5
Kvemo Kartli	1144	1352.2	974	1151.3	1084	1269.3	926	1084.3
Guria	1188	4991.6	1072	4504.2	1283	5390.8	1132	4756.3
Samtskhe–Javakheti	286	798.9	238	664.8	362	1005.6	293	813.9
Mtskheta–Mtianeti	233	1259.5	208	1124.3	344	1859.5	316	1708.1
Racha–Lechkhumi and Kvemo Svaneti	101	1246.9	71	876.5	79	975.3	60	740.7
Departments other than the MoLHSA	8	--	6	--	9	--	7	--
Georgia	**12414**	**1648.8**	**10285**	**1366.1**	**11977**	**1580.1**	**10072**	**1328.8**

Table 4.61 Hospital discharges and case fatality rate, blood and blood-forming organ diseases, Georgia, 2010

	Discharged from an in-patient facility			Children aged 0-15	
	Number of hospital discharges	Number of deaths	Case fatality rate (%)	Number of hospital discharges Total	Case fatality rate (%)
Ajara	231	6	2.5	33	0.0
Tbilisi	527	6	1.1	222	0.4
Kakheti	16	1	5.9	3	0.0
Imereti	130	1	0.8	54	0.0
Samegrelo	45	1	2.2	0	0.0
Shida Kartli	5	0	0.0	0	0.0
Kvemo Kartli	24	0	0.0	0	0.0
Guria	1	0	0.0	0	0.0
Samtskhe–Javakheti	2	1	33.3	0	0.0
Mtskheta–Mtianeti	0	0	0.0	0	0.0
Racha–Lechkhumi	1	0	0.0	1	0.0
Departments other than the MoLHSA	4	0	0.0	0	0.0
Georgia	**986**	**16**	**1.6**	**313**	**0.3**

Table 4.62 Anemia, Georgia, 2004 – 2010

	2004	2005	2006	2007	2008	2009	2010
Total number of registered cases	**14578**	**14236**	**14102**	**15828**	**16670**	**21914**	**20979**
Prevalence rate per 100000 population	*333.5*	*325.6*	*320.7*	*360.7*	*380.3*	*496.8*	*471.1*
Total number of new cases	**8115**	**7751**	**8024**	**8976**	**10419**	**16012**	**15902**
Incidence rate per 100000 population	*185.6*	*177.3*	*182.5*	*204.5*	*237.7*	*363.0*	*357.1*

Table 4.63 Anemia in children under 15 years, Georgia, 2004 – 2009

	2004	2005	2006	2007	2008	2009	2010
Total number of registered cases	**7665**	**7851**	**6662**	**6930**	**7594**	**11449**	**11146**
Prevalence	*825.9*	*857.2*	*838.5*	*903.3*	*1009.6*	*1520.7*	*1470.4*
Total number of new cases	**4626**	**4636**	**3883**	**4416**	**5177**	**9666**	**9472**
Incidence	*504.9*	*506.1*	*488.7*	*575.6*	*688.2*	*1283.8*	*1249.6*

Table 4.64 Anemia, morbidity according to regions, Georgia, 2008 – 2009

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	1532	-	825	-	1133	--	687	--
Ajara	2681	697.1	2039	530.2	2820	722.0	2082	533.0
Tbilisi	2377	207.5	1382	120.7	1522	130.9	1209	104.0
Kakheti	1941	481.5	1459	361.9	1939	477.4	1457	358.7
Imereti	4474	641.8	3361	482.1	4368	620.0	3304	469.0
Samegrelo	2511	533.1	1901	403.6	2699	565.7	1916	401.6
Shida Kartli	1558	504.2	1188	384.5	1611	514.7	1370	437.7
Kvemo Kartli	1607	324.2	1305	263.3	1479	292.5	1185	234.3
Guria	1764	1266.3	1529	1097.6	1808	1288.7	1533	1092.7
Samtskhe–Javakheti	725	345.7	500	238.4	798	375.0	559	262.7
Mtskheta–Mtianeti	378	349.0	324	299.2	404	369.6	330	301.9
Racha–Lechkhumi and Kvemo Svaneti	302	633.1	147	308.2	329	695.6	206	435.5
Departments other than the MoLHSA	64	-	52	-	69	--	64	--
Georgia	**21850**	**495.4**	**15960**	**361.8**	**20979**	**471.1**	**15902**	**357.1**

Table 4.65 Endocrine, nutritional and metabolic diseases, Georgia, 2000 - 2010

	All ages				Children aged 0-15			
	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence
2000	140145	3147.8	32116	721.4	32756	3601.3	11856	1303.5
2001	121866	2750.3	31573	712.3	22434	2478.2	9484	1047.7
2002	120087	2747.0	30056	687.5	21842	2384.6	9452	1031.9
2003	124264	2870.6	28859	666.7	22420	2651.7	7985	944.4
2004	129346	2958.8	29920	684.4	22227	2426.7	6580	718.4
2005	137216	3138.9	31843	720.2	23716	2589.2	7906	863.2
2006	124016	2819.8	27660	628.9	18310	2304.6	6441	810.7
2007	118812	2707.4	27307	622.3	10392	1354.5	5602	730.2
2008	119864	2734.2	30580	697.6	9356	1243.8	5323	707.7
2009	124793	2829.2	40054	908.1	9053	1202.4	7982	1060.2
2010	**129731**	**2913.5**	**43545**	**977.9**	**8124**	**1073.9**	**6416**	**848.1**

Table 4.66 Endocrine, nutritional and metabolic diseases, Georgia, 2009 – 2010

	2009				2010			
	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence
Endocrine, nutritional and metabolic diseases	**124793**	**2829.2**	**40054**	**908.1**	**129731**	**2913.5**	**43545**	**977.9**
Including								
Sub clinical iodine-deficiency hypothyroidism and other hypothyroidism	25913	587.5	7999	181.3	23083	518.4	7240	162.6
Other non-toxic goitre	15793	358.0	6634	150.4	16503	370.6	5947	133.6
Thyrotoxicosis (hyperthyroidism)	5637	127.8	2213	50.2	5524	124.1	2465	55.4
Diabetes mellitus insulin-dependent (type I)	19461	441.2	3390	76.9	17517	393.4	2894	65.0
Diabetes mellitus non-insulin-dependent (type II)	49453	1121.2	7737	175.4	52776	1185.2	7756	174.2

Table 4.67 Endocrine, nutritional and metabolic diseases morbidity according to regions, Georgia, 2010

	Cases registered by the end of the year				New cases			
	Total		In children		Total		In children	
	Number of cases	Prevalence	Number of cases	Prevalence	Number of cases	Incidence	Number of cases	Incidence
Abkhazia	3047	--	128	--	1260	--	201	--
Ajara	14307	3680.7	605	916.7	3216	827.4	877	1328.8
Tbilisi	38854	3356.7	1425	724.5	8058	696.2	292	148.4
Kakheti	17852	4404.6	3403	4939.0	4831	1192.0	773	1121.9
Imereti	24888	3543.3	822	689.0	9634	1371.6	962	806.4
Samegrelo	7965	1674.7	426	527.2	2805	589.8	809	1001.2
Shida Kartli	8160	2617.1	594	1120.8	4321	1385.8	888	1675.5
Kvemo Kartli	5422	1078.4	167	195.6	2481	493.4	813	952.0
Guria	1627	1161.3	114	479.0	636	454.0	241	1012.6
Samtskhe–Javakheti	3312	1562.3	264	733.3	1723	812.7	294	816.7
Mtskheta–Mtianeti	2480	2273.1	137	740.5	1027	941.3	191	1032.4
Racha–Lechkhumi and Kvemo Svaneti	1497	3151.6	30	370.4	480	1010.5	63	777.8
Departments other than the MoLHSA	320	--	9	--	3073	--	12	--
Georgia	**129731**	**2913.5**	**8124**	**1073.9**	**43545**	**977.9**	**6416**	**848.1**

Table 4.68 Diabetes mellitus, Georgia, 2008 – 2010

	2008		2009		2010	
	Number of new cases	**Incidence**	**Number of new cases**	**Incidence**	**Number of new cases**	**Incidence**
Diabetes mellitus	**9425**	**215.0**	**11127**	**252.3**	**11026**	**247.6**
Including						
Insulin-dependent diabetes mellitus (Type I)	2630	60.0	3390	76.9	2894	65.0
Non-insulin-dependent diabetes mellitus (Type II)	6795	155.0	7737	175.4	7756	174.2
	Number of patients enrolled by the end of the year	**Prevalence**	**Number of patients enrolled by the end of the year**	**Prevalence**	**Number of patients enrolled by the end of the year**	**Prevalence**
Diabetes mellitus	**64442**	**1470.0**	**68914**	**1562.4**	**71205**	**1599.1**
Including						
Insulin-dependent diabetes mellitus (Type I)	17817	406.4	19461	441.2	17517	393.4
Non-insulin-dependent diabetes mellitus (Type II)	46625	1063.6	49453	1121.2	52776	1185.2

Table 4.69 Diabetes mellitus in children, Georgia, 2008 – 2010

	2008		2009		2010	
	Number of new cases	**Incidence**	**Number of new cases**	**Incidence**	**Number of new cases**	**Incidence**
Diabetes mellitus	**45**	**6.0**	**64**	**8.5**	**63**	**8.3**
Including						
Insulin-dependent diabetes mellitus (Type I)	35	4.6	57	7.6	35	4.6
Non-insulin-dependent diabetes mellitus (Type II)	10	1.3	7	0.9	19	2.5
	Number of patients enrolled by the end of the year	**Prevalence**	**Number of patients enrolled by the end of the year**	**Prevalence**	**Number of patients enrolled by the end of the year**	**Prevalence**
Diabetes mellitus	**234**	**31.1**	**257**	**34.1**	**238**	**31.4**
Including						
Insulin-dependent diabetes mellitus (Type I)	184	24.5	228	30.3	189	24.9
Non-insulin-dependent diabetes mellitus (Type II)	50	6.6	29	3.9	32	4.2

Table 4.70 Diabetes mellitus, morbidity according to regions, Georgia, 2010

	Number of patients enrolled by the end of the year				Number of new cases			
	Total		In children		Total		In children	
	Number of cases	Prevalence	Number of cases	Prevalence	Number of cases	Incidence	Number of cases	Incidence
Abkhazia	1533	--	5	--	301	--	1	--
Ajara	7383	1899.4	7	10.6	1028	264.5	2	3.0
Tbilisi	24575	2123.1	97	49.3	2730	235.9	18	9.2
Kakheti	6791	1675.5	15	21.8	1215	299.8	6	8.7
Imereti	13084	1862.8	46	38.6	2123	302.2	8	6.7
Samegrelo	3453	726.0	18	22.3	549	115.4	5	6.2
Shida Kartli	5226	1676.1	17	32.1	998	320.1	5	9.4
Kvemo Kartli	3797	755.2	9	10.5	750	149.2	9	10.5
Guria	1094	780.9	10	42.0	178	127.1	3	12.6
Samtskhe–Javakheti	1712	807.5	8	22.2	492	232.1	4	11.1
Mtskheta–Mtianeti	1190	1090.7	4	21.6	230	210.8	1	5.4
Racha–Lechkhumi and Kvemo Svaneti	1153	2427.4	2	24.7	303	637.9	1	12.3
Departments other than the MoLHSA	214	--	0	--	129	--	0	--
Georgia	**71205**	**1599.1**	**238**	**31.4**	**11026**	**247.6**	**63**	**8.3**

Table 4.71 Endocrine, nutritional and metabolic diseases, hospital discharges and case fatality rate, Georgia, 2009 – 2010

	2009				2010			
	Number of hospital discharges	Case fatality rate, %	In children		Number of hospital discharges (all ages)	Case fatality rate, %	In children	
			Number of hospital discharges	Case fatality rate, %			Number of hospital discharges	Case fatality rate, %
Total	**3836**	**1.8**	**406**	**0**	**3449**	**1.6**	**338**	**0**
Including								
Thyrotoxicosis	435	0.2	2	0	323	0	0	0
Diabetes mellitus	1950	2.7	194	0	2093	1.9	243	0

Table 4.72 Endocrine, nutritional and metabolic diseases, hospital discharges and case fatality rate, Georgia, 2010

	2009				2010			
	Total number of hospital discharges (all ages)	Case fatality rate, %	In children		Total number of hospital discharges (all ages)	Case fatality rate, %	In children	
			Number of hospital discharges	Case fatality rate, %			Number of hospital discharges	Case fatality rate, %
Ajara	372	0	5	0	317	2,8	2	0
Tbilisi	1698	2.4	395	0	1743	0.9	303	0
Kakheti	225	1.7	1	0	254	3.5	2	0
Imereti	928	1.2	2	0	590	0.8	23	0
Samegrelo	153	1.9	0	0	199	5.0	4	0
Shida Kartli	177	1.7	3	0	96	0	0	0
Kvemo Kartli	86	3.4	0	0	95	3.2	1	0
Guria	33	2.9	0	0	12	8.3	1	0
Samtskhe–Javakheti	36	7.7	0	0	83	2.4	2	0
Mtskheta–Mtianeti	3	0	0	0	13	0	0	0
Racha–Lechkhumi and Kvemo Svaneti	3	0	0	0	4	0	0	0
Departments other than the MoLHSA	52	0	0	0	43	0	0	0
Georgia	**3836**	**1.8**	**406**	**0**	**3449**	**1.6**	**338**	**0**

Table 4.73 Endocrine hospital beds, performance indicators according to the regions, Georgia, 2010

	Total number of beds	Occupancy rate	Average length of stay	Bed rotation rate
Ajara	10	46.6	2.8	16.7
Kakheti	37	80,4	2,1	22,9
Imereti	3	107.7	7.5	14.3
Samegrelo	2	95.5	2.5	38.0
Kvemo Kartli	1	125.0	2.6	48.0
Georgia	**54**	**75.6**	**3.5**	**21.9**

Table 4.74 Thyroid gland screenings, Georgia, 2008 – 2010

	2008		2009		2010	
	Total number	%	Total number	%	Total number	%
All ages						
Total number of screenings	**45037**	**100**	**46486**	**100**	**37856**	**100**
Total number of thyroid gland hyperplasia	24288	53.9	25780	55.4	23814	62.9
Prescribed treatment	20497	84.4	22764	88.3	22170	93.1
In children						
Total number of screenings	**16402**	**100**	**9912**	**100**	**6130**	**100**
Total number of thyroid gland hyperplasia	6845	41.7	5617	56.7	3389	55.3
Prescribed treatment	5534	80.8	4616	82.2	3109	91.7

Table 4.75 Distribution of cases of thyroid gland enlargement by stages, Georgia, 2009 – 2010

	2009						2010					
			Stage (%)						Stage (%)			
	Number of cases	% from total number of screened	Ia	Ib	II	III	Number of cases	% from total number of screened	Ia	Ib	II	III
Total number of thyroid gland enlargements	**25780**	**55.4**	**35.1**	**26.3**	**25.9**	**12.7**	**23814**	**62.9**	**42.8**	**21.6**	**25.8**	**9.8**
Including in children	5617	56.7	46.0	26.7	21.8	5.6	3389	55.3	42.7	23.7	24.7	8.9

Table 4.76 Distribution of cases of thyroid gland enlargement by regions, screening results, Georgia, 2010

	All ages			In children		
	Number of screenings	Number of cases of thyroid gland hyperplasia detection	% from the total number of screened	Number of screenings	Number of cases of thyroid gland hyperplasia detection	% from the total number of screened
Abkhazia	2056	766	37.3	634	115	18.1
Ajara	2322	2126	91.6	190	172	90.5
Tbilisi	7340	4724	64.4	937	376	40.1
Kakheti	1719	1122	65.3	391	208	53.2
Imereti	15702	9291	59.2	1651	1070	64.8
Samegrelo	2582	1417	54.9	452	288	63.7
Shida Kartli	2729	2109	77.3	700	440	62.9
Kvemo Kartli	791	486	61.4	194	48	24.7
Guria	493	343	69.6	265	194	73.2
Samtskhe–Javakheti	1080	842	78.0	524	400	76.3
Mtskheta–Mtianeti	851	439	51.6	188	78	41.5
Racha–Lechkhumi and Kvemo Svaneti	70	25	35.7	0	0	0
Departments other than the MoLHSA	124	124	100	4	0	0
Georgia	**37859**	**23814**	**62.9**	**6130**	**3389**	**55.3**

Table 4.77 Prevention of iodine deficiency activity, Georgia, 2006 – 2010

	2006	2007	2008	2009	2010
Total number of iodine deficiency preventions	24910	25471	24805	21521	13395
Including in children	11205	10001	12369	7113	3351

Table 4.78 Mental and behavioural disorders, Georgia,1988 – 2010

	All ages				Children aged 0-15			
	Number of registered cases by the end of the year	Prevalence	Number of new cases	Incidence	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence
1988	77537	1436.7	3627	67.2	2728	213.3	587	45.9
1990	74757	1378.2	2718	50.1	5074	396.5	465	36.3
1995	65031	1356.5	2122	44.3	3171	318.7	160	16.1
1996	66392	1420.3	1459	31.2	2747	289.7	131	13.8
2000	67641	1519.3	1817	40.8	1905	201.9	99	10.5
2001	67299	1526.1	1741	39.5	1710	185.0	147	15.9
2002	65161	1490.6	1728	39.5	1747	190.7	217	23.7
2003	65788	1519.7	1645	38.0	1459	172.6	215	25.4
2004	68993	1578.2	3206	73.3	1537	167.8	412	45.0
2005	71179	1628.2	3974	91.0	1662	181.5	564	61.6
2006	74022	1683.3	3810	87.2	1716	216.0	344	37.6
2007	72588	1654.1	2677	61.0	1496	195.0	167	21.8
2008	75448	1721.1	3740	85.3	1672	222.3	284	37.8
2009	76457	1733.4	2505	56.8	1651	219.3	343	45.6
2010	**79216**	**1779.0**	**2339**	**52.5**	**1628**	**217.5**	**298**	**39.8**

Table 4.79 Mental and behavioural disorders morbidity according to regions, Georgia, 2009 – 2010

	2009				2010			
	All ages		In children		All ages		In children	
	Number of cases registered by the end of the year	Prevalence	Number of cases registered by the end of the year	Prevalence	Number of cases registered by the end of the year	Prevalence	Number of cases registered by the end of the year	Prevalence
Abkhazia	1171	--	0	--	1201	--	0	--
Ajara	7313	1901.5	329	500.8	7500	1929.5	326	493.9
Tbilisi	9978	871.1	394	201.5	9577	827.4	318	161.7
Kakheti	5731	1421.7	131	190.4	6223	1535.4	131	190.1
Imereti	18359	2633.6	237	199.2	21130	3008.3	311	260.7
Samegrelo	12128	2574.9	186	231.3	11745	2469.5	193	238.9
Shida Kartli	7376	2387.1	114	216.3	7517	2410.8	112	211.3
Kvemo Kartli	7246	1461.8	154	182.0	7345	1460.8	152	178.0
Guria	3196	2294.3	40	168.1	3034	2165.6	32	134.5
Samtskhe–Javakheti	1893	902.7	60	167.6	1947	918.4	45	125.0
Mtskheta–Mtianeti	2066	1907.7	6	32.4	1997	1830.4	8	43.2
Georgia	**76457**	**1733.4**	**1651**	**219.3**	**79216**	**1779.0**	**1628**	**217.5**

Table 4.80 Mental and behavioural disorders, incidence, Georgia, 2009 - 2010

	2009				2010			
	All ages		In children		All ages		In children	
	Number of new cases	Incidence	Number of new cases	Incidence	Number of new cases	Incidence	Number of new cases	Incidence
Abkhazia	33	--	0	--	30	--	0	--
Ajara	254	66.0	43	65.4	226	58.1	47	71.2
Tbilisi	481	42.0	81	41.4	528	45.6	64	32.5
Kakheti	170	42.2	22	32.0	153	37.7	15	21.8
Imereti	596	85.5	82	68.9	597	85.0	112	93.9
Samegrelo	190	40.3	12	14.9	159	33.4	16	19.8
Shida Kartli	413	133.7	28	53.1	246	78.9	28	52.8
Kvemo Kartli	145	29.3	19	22.5	136	27.0	2	2.3
Guria	103	73.9	26	109.2	135	96.4	0	0.0
Samtskhe-Javakheti	88	42.0	30	83.8	81	38.2	12	33.3
Mtskheta–Mtianeti	32	29.5	0	0.0	48	44.0	2	10.8
Georgia	**2505**	**56.8**	**343**	**45.6**	**2339**	**52.5**	**298**	**39.8**

Table 4.81 Mental and behavioural disorders by certain nosologies, Georgia, 2010

	Number of new cases	Number of registered cases by the end of the year	Incidence	Prevalence
Mental and behavioural disorders – all cases	**2339**	**79216**	**52.5**	**1779**
Organic, including symptomatic, mental disorders	***453***	***11491***	***10.1***	***258***
dementia in other specified diseases classified elsewhere	86	2901	1.9	65.1
organic personality disorders (including limbic epilepsy personality syndrome)	96	5695	2.1	127
Mental and behavioural disorders due to psychoactive substances use	***22***	***2161***	***0.5***	***48.5***
Schizophrenia, schizotypal and delusional disorders	***724***	***23686***	***16.2***	***531.9***
Including: schizophrenia	292	15228	6.5	341.9
schizotypal disorders	137	2351	3.1	52.8
persistent delusional disorders	97	2110	2.2	47.3
acute and transient psychotic disorders	83	987	1.9	22.1
schizoaffective disorders	93	2146	2.1	48.1
Mood (affective) disorders	***209***	***5504***	***4.7***	***123.6***
Including: maniac episode	5	989	0.1	22.2
bipolar affective disorder	42	977	0.9	21.9
depressive episode	122	1563	2.7	35.1
recurrent depressive disorders	39	1898	0.9	42.6
Neurotic, stress-related and somatoform disorders	***77***	***8712***	***1.7***	***195.6***
Behavioural syndromes associated with physiological disturbances and physical factors	***5***	***541***	***0.1***	***12.1***
Disorders of adult personality and behaviour	***60***	***2630***	***1.3***	***59***
Mental retardation	***713***	***22741***	***16.0***	***510.7***
Disorders of psychological development	***29***	***1323***	***0.6***	***29.7***
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	***47***	***427***	***1***	***9.5***

Table 4.82 Mental and behavioral disorders registered by the end of the year, age and sex distribution, Georgia, 2010

	Total	Including: aged				Females
		0-14	15-17	18-19	20-59	
Mental and behavioural disorders – all ages, both sexes	**79216**	**1628**	**1229**	**1388**	**63579**	**32738**
Including						
Organic, including symptomatic, mental disorders	11491	300	272	276	9111	4674
Mental and behavioural disorders due to psychoactive substances use	2161	0	0	0	1971	136
Schizophrenia, schizotypal and delusional disorders	23686	67	119	366	20441	11220
Including schizophrenia	15228	32	36	267	13039	6769
Mood (affective) disorders	5504	20	76	9	4443	2236
Neurotic, stress-related and somatoform disorders	8712	0	39	76	7482	4960
Behavioural syndromes associated with physiological disturbances and physical factors	541	0	1	2	522	208
Disorders of adult personality and behaviour	2630	0	0	55	1997	521
Mental retardation	22741	1039	634	577	16213	8054
Disorders of psychological development	1323	40	40	7	1217	588
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	427	162	48	20	182	141

Table 4.83 Mental and behavioral disorders, new cases, age and sex distribution, Georgia, 2010

	Total	Including: aged				Females
		0-14	15-17	18-19	20-59	
Mental and behavioural disorders – all ages, both sexes	**2339**	**298**	**90**	**100**	**1575**	**1018**
Including						
Organic, including symptomatic mental disorders	453	22	11	9	296	176
Mental and behavioural disorders due to psychoactive substance use	22	0	0	0	22	0
Schizophrenia, schizotipal and delusional disorders	724	1	7	14	623	334
Including schizophrenia	292	1	1	8	259	132
Mood (affective) disorders	2209	1	2	8	173	126
Neurotic, stress-related and somatoform disorders	77	0	1	4	68	35
Behavioural syndromes associated with physiological disturbances and physical factors	5	0	0	0	5	1
Disorders of adult personality and behaviour	60	0	0	10	35	3
Mental retardation	713	229	56	54	377	303
Disorders of psychological development	29	10	1	1	16	16
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	47	35	12	0	10	24

Table 4.84 Mental and behavioural disorders, hospital discharges and case fatality rate by the regions, Georgia, 2010

	Number of discharges	Including hospital deaths	Case fatality rate (%)
Total	**3734**	**56**	**1.5**
Including			
Organic, including symptomatic mental disorders	413	17	4.1
Mental and behavioural disorders due to psychoactive substance use	183	1	0.5
Schizophrenia, schizotipal and delusional disorders	2615	34	1.3
Including schizophrenia	1947	28	1.4
Mood (affective) disorders	272	1	0.4
Neurotic, stress-related and somatoform disorders	45	0	0
Behavioural syndromes associated with physiological disturbances and physical factors	6	0	0
Disorders of adult personality and behaviour	47	0	0
Mental retardation	145	3	2.1

Table 4.85 Mental and behavioural disorders, hospital discharges and case fatality rate, Georgia, 2008 - 2010

	2008	2009	2010
Total number of discharges	3705	3488	3734
Including hospital deaths	82	52	56
Case fatality rate (%)	*2.2*	*1.5*	*1.5*
Number of patient treated in the diurnal hospitals	670	575	593

Table 4.86 Diseases of the nervous system, Georgia, 2007 – 2010

	All ages				Children aged 0-15			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
2007	93749	2136.3	26013	592.8	22003	2868.0	6555	854.4
2008	104523	2384.3	29049	662.6	22224	2954.5	6267	833.2
2009	121062	2744.6	45489	1031.3	27474	3649.1	13149	1746.4
2010	**125619**	**2821.1**	**47742**	**1072.2**	**26896**	**3555.3**	**11406**	**1507.7**

Table 4.87 Diseases of the nervous system, morbidity rates by the regoins, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	6398	--	1483	--	5410	--	1953	--
Ajara	6367	1655.5	2453	637.8	5656	1455.1	2125	546.7
Tbilisi	52972	4624.8	12965	1131.9	55519	4796.5	12160	1050.5
Kakheti	8332	2067.0	3199	793.6	7394	1824.3	2750	678.5
Imereti	15012	2153.5	7023	1007.5	17045	2426.7	8663	1233.3
Samegrelo	6563	1393.4	2288	485.8	6560	1379.3	2361	496.4
Shida Kartli	8725	2823.6	5969	1931.7	8751	2806.6	5246	1682.5
Kvemo Kartli	5127	1034.3	2430	490.2	5308	1055.7	2640	525.1
Guria	1170	839.9	582	417.8	1104	788.0	487	347.6
Samtskhe–Javakheti	1681	801.6	545	259.9	2468	1164.2	1256	592.5
Mtskheta–Mtianeti	2655	2451.5	1653	1526.3	2594	2377.6	1089	998.2
Racha–Lechkhumi and Kvemo Svaneti	1476	3094.3	477	1000.0	1291	2717.9	660	1389.5
Departments other than the MoLHSA	4584	--	4422	--	6519	--	6352	--
Georgia	**121062**	**2744.6**	**45489**	**1031.3**	**125619**	**2821.1**	**47742**	**1072.2**

Table 4.88 Diseases of the nervous system, morbidity rates in children, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	669	--	415	--	846	--	521	--
Ajara	891	1356.2	392	596.7	627	950.0	321	486.4
Tbilisi	14733	7536.1	4329	2214.3	16254	8263.3	4356	2214.5
Kakheti	942	1369.2	539	783.4	825	1197.4	388	563.1
Imereti	1689	1419.3	845	710.1	2556	2142.5	1683	1410.7
Samegrelo	1195	1486.3	666	828.4	1050	1299.5	688	851.5
Shida Kartli	4913	9322.6	4278	8117.6	2202	4154.7	1553	2930.2
Kvemo Kartli	1790	2115.8	1294	1529.6	1613	1888.8	1235	1446.1
Guria	336	1411.8	210	882.4	219	920.2	107	449.6
Samtskhe–Javakheti	147	410.6	72	201.1	530	1472.2	453	1258.3
Mtskheta–Mtianeti	119	643.2	84	454.1	128	691.9	76	410.8
Racha–Lechkhumi and Kvemo Svaneti	31	382.7	10	123.5	29	358.0	9	111.1
Departments other than the MoLHSA	19	--	15	--	17	--	16	--
Georgia	**27474**	**3649.1**	**13149**	**1746.4**	**26896**	**3555.3**	**11406**	**1504.7**

Table 4.89 Diseases of the nervous system by certain nosologies, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Diseases of the nervous system	**121062**	**2744.6**	**45489**	**1031.3**	**125619**	**2821.1**	**47742**	**1072.2**
Including								
Inflammatory diseases of the central nervous system	3857	87.4	1163	26.4	5474	122.9	2627	59.0
Systemic atrophies primarily affecting the central nervous system	1598	36.2	542	12.3	2259	50.7	1076	24.2
Extrapyramidal and movement disorders	7650	173.4	2055	46.6	8764	196.8	2776	62.3
Other degenerative and demyelinating diseases of the nervous system	2173	49.3	756	17.1	2740	61.5	1011	22.7
Episodic and paroxysmal disorders	21802	494.3	5772	130.9	22174	498.0	6334	142.2
Including: Epilepsy and status epilepticus	8928	202.4	1450	32.9	9384	210.7	1629	36.6
Disorders of the peripheral nervous system	40272	913.0	16230	368.0	40424	907.8	16705	375.2
Cerebral palsy and other paralytic syndromes	5738	130.1	1720	39.0	7258	163.0	2551	57.3

Table 4.90 Diseases of the nervous system in children by certain nosologies, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Diseases of the nervous system	**27474**	**3649.1**	**13149**	**1746.4**	**26896**	**3555.3**	**11406**	**1507.7**
Including								
Inflammatory diseases of the central nervous system	260	34.5	141	18.7	1604	212.0	1447	191.3
Systemic atrophies primarily affecting the central nervous system	89	11.8	33	4.4	251	33.2	195	25.8
Extrapyramidal and movement disorders	514	68.3	224	29.8	798	105.5	432	57.1
Other degenerative and demyelinating diseases of the nervous system	120	15.9	52	6.9	295	39.0	151	20.0
Episodic and paroxysmal disorders	5068	673.1	1668	221.5	4902	648.0	1928	254.9
Including: Epilepsy and status epilepticus	2237	297.1	325	43.2	2036	269.1	324	42.8
Disorders of the peripheral nervous system	1440	191.3	407	54.1	1260	166.6	455	60.1
Cerebral palsy and other paralytic syndromes	1873	248.8	489	64.9	1910	252.5	430	56.8

Table 4.91 Diseases of the nervous system, hospital discharges and case fatality rate, Georgia, 2009 – 2010

	2009		2010	
	Number of discharges	Case fatality rate, %	Number of discharges	Case fatality rate, %
Diseases of the nervous system	**5486**	**4.8**	**6468**	**5.3**
Including				
Cerebral palsy in children	146	2.1	373	1.3
Disorders of the peripheral nervous system	1070	1.2	1253	0.2

Table 4.92 Diseases of the nervous system, hospital discharges and case fatality rate in children, Georgia, 2009 – 2010

	2009				2010			
			Children aged < 1				Children aged < 1	
	Number of discharges	Case fatality rate, %	Number of discharges	Case fatality rate, %	Number of discharges	Case fatality rate, %	Number of discharges	Case fatality rate, %
Diseases of the nervous system	**1539**	**1,5**	**586**	**1.9**	**1680**	**0.7**	**573**	**0.3**
Including								
Infantile cerebral palsy	137	2.2	41	2.5	146	3.4	16	6.2
Disorders of the peripheral nervous system	267	0	206	0	370	0	264	0

Table 4.93 Neurological beds performance indicators by the regions, Georgia, 2009 - 2010*

	2009				2010			
	Total number of beds	Average length of stay	Occupancy rate (days)	Bed rotation rate	Total number of beds	Average length of stay	Occupancy rate (days)	Bed rotation rate
Ajara	30	8.2	158.3	19.9	32	7.0	152.2	22.3
Tbilisi	165	6.1	121.6	20.2	168	6.8	150.1	22.1
Imereti	29	6.0	168.4	28.9	29	7.2	248.4	35.3
Samegrelo	8	5.2	272.4	52.4	8	5.2	310.4	59.4
Shida Kartli	2	5.1	92.0	18.0	0	-	-	-
Kvemo Kartli	25	4.2	62.0	14.9	15	4.6	98.9	21.3
Guria	10	5.5	54.1	9.7	10	7.1	84.2	12.2
Racha–Lechkhumi and Kvemo Svaneti	5	7.2	140.8	19.6	5	7.5	192.6	25.6
Departments other than the MoLHSA	22	11.6	238.5	20.5	22	11.0	209.0	18.9
Georgia	**296**	**6.5**	**135.5**	**21.1**	**289**	**7.0**	**164.9**	**23.9**

* *Other regions do not have in-patient beds for patients with neurological disorders*

Table 4.94 Diseases of the nervous system, hospital discharges and case fatality rate, Georgia, 2009 – 2010

	2009				2010			
	Number of discharges		Case fatality rate, %		Number of discharges		Case fatality rate, %	
	All ages	Children	All ages	Children	All ages	Children	All ages	Children
Ajara	618	115	4.9	0	993	119	5.0	0
Tbilisi	2364	811	4.1	1.5	2345	898	4.4	0.4
Kakheti	323	27	1.2	3.7	477	25	9.0	0
Imereti	970	456	4.4	0.7	1053	505	5.3	0.4
Samegrelo	296	46	0	0	329	29	0.6	0
Shida Kartli	340	43	16.8	16.3	523	61	13.0	0
Kvemo Kartli	87	19	14.9	0	234	27	6.0	0
Guria	74	18	0	0	48	14	0	0
Samtskhe–Javakheti	102	4	6.9	0	174	2	4.0	0
Mtskheta–Mtianeti	11	0	9.1	0	0	0	-	-
Racha – Lechkhumi	13	0	0	0	28	0	-	-
Departments other than the MoLHSA	288	0	3.5	0	264	0	1.1	0
Georgia	**5486**	**1539**	**4.8**	**1.5**	6468	1680	**5.3**	**0.3**

Table 4.95 Nervous system surgeries and case fatality rate, Georgia, 2008 – 2010

	2008		2009		2010	
	Number of operations	Case fatality rate, %	Number of operations	Case fatality rate, %	Number of operations	Case fatality rate, %
Total number of operations	**3239**	**3.6**	**3450**	**2.7**	**3387**	**2.5**
Brain	1020	7.1	1101	6.6	1013	4.2
Spinal cord	198	0	133	2.3	66	1.5
Maters	60	10.0	284	0	107	10.7
Peripheral nervous system	103	6.8	144	0.7	109	0.9
Intervertebral disks	1742	0.1	1701	0.1	1960	0

Table 4.96 Nervous system surgeries according to regions, Georgia, 2010*

	Total	Including				
		Brain	Spinal cord	Maters	Peripheral nervous system	Intervertebral disks
Ajara	346	29	0	0	5	312
Tbilisi	2274	762	60	74	103	1162
Imereti	457	141	5	32	0	268
Samegrelo	190	60	1	0	0	129
Shida Kartli	52	8	0	0	0	36
Kvemo Kartli	2	2	0	0	0	0
Departments other than the MoLHSA	66	11	0	1	1	53
Georgia	**3387**	**1013**	**66**	**107**	**109**	**1960**

* *There were no surgeries on the nervous system registered in other regions*

Table 4.97 Diseases of the eye and adnexa, morbidity rates, Georgia, 2007 – 2010

	Il ages				Children			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
2007	86322	1967.1	24573	560.0	14340	1869.1	7473	974.1
2008	104858	2391.9	35072	800.0	17102	2273.6	8648	1149.7
2009	123384	2797.3	47797	1083.6	19241	2555.6	10415	1383.3
2010	**124576**	**2797.7**	**49531**	**1112.4**	**17695**	**2339.1**	**9679**	**1279.4**

Table 4.98 Diseases of the eye and adnexa by certain nosologies, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Diseases of the eye and adnexa	**123384**	**2797.3**	**47797**	**1083.6**	**124576**	**2797.7**	**49531**	**1112.4**
Including								
Disorders of lens	33967	770.1	11341	257.1	36309	815.4	11847	266.1
Glaucoma	10962	248.5	3277	74.3	12347	277.3	3783	85.0
Disorders of refraction and accommodation	36488	827.2	15168	343.9	37194	835.3	17274	387.9

Table 4.99 Diseases of the eye and adnexa in children, certain nosologies, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	New cases	Incidence
Diseases of the eye and adnexa	**19241**	**2555.6**	**10415**	**1383.3**	**17695**	**2339.1**	**9679**	**1279.4**
Including								
Disorders of lens	313	41.6	159	21.1	285	37.7	143	18.9
Glaucoma	78	10.4	23	3.1	75	9.9	21	2.8
Disorders of refraction and accommodation	8703	1155,9	2926	388.6	7719	1020.4	3020	399.2

Table 4.100 Diseases of the eye and adnexa according to regions, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	6732	--	2090	--	4865	--	1668	--
Ajara	15215	3956.1	8316	2162.2	11218	2886.0	5870	1510.2
Tbilisi	58493	5106.8	15386	1343.3	58258	5033.1	15030	1298.5
Kakheti	6299	1562.6	2685	666.1	7410	1828.3	3154	778.2
Imereti	14776	2119.6	6099	874.9	15788	2247.7	7090	1009.4
Samegrelo	4492	953.7	2272	482.4	4606	968.5	1794	377.2
Shida Kartli	3292	1065.4	1688	546.3	7422	2380.4	5298	1699.2
Kvemo Kartli	4193	845.9	3422	690.3	4821	958.8	3330	662.3
Guria	2412	1731.5	1408	1010.8	2626	1874.4	1591	1135.6
Samtskhe–Javakheti	2097	1000.0	1308	623.7	2490	1174.5	1573	742.0
Mtskheta–Mtianeti	2179	2012.0	1203	1110.8	2115	1938.6	1116	1022.9
Racha–Lechkhumi and Kvemo Svaneti	1132	2373.2	500	1048.2	808	1701.1	305	642.1
Departments other than the MoLHSA	2072	--	1420	--	2149	--	1712	--
Georgia	**123384**	**2797.3**	**47797**	**1083.6**	**124576**	**2797.7**	**49531**	**1112.4**

Table 4.101 Diseases of the eye and adnexa in children, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	855	--	509	--	747	--	437	--
Ajara	2730	4155.3	1750	2663.6	2015	3053.0	1262	1912.1
Tbilisi	8493	4344.2	3821	1954.5	7746	3938.0	3054	1552.6
Kakheti	806	1171.5	451	655.5	864	1254.0	544	789.6
Imereti	2690	2260.5	1306	1097.5	2653	2223.8	1508	1264.0
Samegrelo	533	662.9	297	369.4	435	538.4	265	328.0
Shida Kartli	1342	2546.5	840	1593.9	1214	2290.6	994	1875.5
Kvemo Kartli	957	1131.2	790	933.8	1057	1237.7	843	987.1
Guria	446	1873.9	349	1466.4	486	2042.0	393	1651.3
Samtskhe–Javakheti	119	332.4	89	248.6	144	400.0	112	311.1
Mtskheta–Mtianeti	193	1043.2	161	870.3	241	1302.7	202	1091.9
Racha–Lechkhumi and Kvemo Svaneti	71	876.5	47	580.2	84	1037.0	57	703.7
Departments other than the MoLHSA	6	--	5	--	9	--	8	--
Georgia	**19241**	**2555.6**	**10415**	**1383.3**	**17695**	**2339.1**	**9679**	**1279.4**

Table 4.102 Diseases of the eye and adnexa, hospital discharges, Georgia, 2009 – 2010

	2009			2010		
	Number of discharges all ages	In children		Number of discharges all ages	In children	
		Aged 0-15	Aged 0-1		Aged 0-1	Aged 0-1
Diseases of the eye and adnexa	**4809**	**205**	**6**	**5631**	**252**	**4**
Including						
Disorders of lens	2587	22	0	2879	29	0
Glaucoma	519	4	0	594	4	0

Table 4.103 Ophthalmologic bed occupancy rates by the regions, Georgia, 2009 - 2010*

	2009				2010			
	Number of beds	Average length of stay	Occupancy rate (days)	Bed rotation rate	Number of beds	Average length of stay	Occupancy rate (days)	Bed rotation rate
Ajara	13	2.0	103.8	52.8	13	1.7	160.7	95.6
Tbilisi	83	3.8	95.8	25.1	85	3.7	86.5	23.3
Kakheti	5	1.0	54.4	52.6	10	1.1	39.9	37.7
Imereti	8	1.2	38.4	33.1	20	1.4	26.9	18.8
Samegrelo	2	1.0	2.5	2.5	2	1.0	2.5	2.5
Guria	3	2.0	5.3	2.7	3	2.0	18.7	9.3
Georgia	**114**	**3.0**	**86.8**	**29.1**	**133**	**2.6**	**78.5.**	**28.1**

Table 4.104 Eye and adnexa surgery, Georgia, 2007 – 2010

		2007	2008	2009	2010
In-patient operations					
Total		**3634**	**5748**	**5124**	**5723**
Including:	microsurgery	2255	3683	3372	4435
	glaucoma operations	373	603	594	**588**
	enucleation surgery	132	149	132	**213**
	cataract operations	2077	3651	2803	**3405**
Out-patient operations					
Total		**3949**	**5214**	**6751**	**7365**
Including:	microsurgery	2431	2212	3162	5123
	glaucoma operations	415	450	730	318
	cataract operations	2624	3297	4123	4370

* *There are no ophthalmologic beds in other regions*

Table 4.105 Diseases of the eye and adnexa, in-patient surgeries by regions, Georgia, 2009 - 2010

	2009				2010			
		Including				Including		
	Total number	Glaucoma	Enucleation	Cataract	Total number	Glaucoma	Enucleation	Cataract
Ajara	684	52	2	478	896	64	58	653
Tbilisi	2075	169	82	663	1841	153	84	772
Kakheti	250	40	9	187	382	50	17	292
Imereti	1410	229	33	956	1961	209	45	1092
Samegrelo	234	5	4	203	297	13	5	247
Shida Kartli	248	79	0	164	245	54	0	167
Kvemo Kartli	81	13	0	65	149	15	2	115
Guria	8	0	0	0	28	14	0	14
Samtskhe–Javakheti	52	5	0	47	37	12	0	25
Racha – Lechkhumi	0	0	0	0	0	0	0	0
Mtskheta–Mtianeti	0	0	0	0	29	1	0	15
Departments other than the MoLHSA	82	2	2	40	58	3	2	13
Georgia	**5124**	**594**	**132**	**2803**	**5723**	**588**	**213**	**3405**

Table 4.106 Diseases of the eye and adnexa, out-patient surgeries by regions, Georgia, 2009 – 2010

	2009				2010			
		Including				Including		
	Total	Micro surgery	Glaucoma	Cataract	Total	Micro surgery	Glaucoma	Cataract
Ajara	31	31	0	0	6	0	0	0
Tbilisi	5784	2640	676	3455	6058	4426	226	3378
Kakheti	0	0	0	0	0	0	0	0
Imereti	569	433	44	384	856	686	71	615
Samegrelo	7	7	0	0	4	4	0	137
Shida Kartli	0	0	0	0	153	3	13	103
Kvemo Kartli	119	20	0	99	111	4	4	85
Guria	151	11	0	139	91	0	0	0
Samtskhe–Javakheti	14	0	0	0	17	0	0	37
Racha – Lechkhumi	56	0	10	46	40	0	3	0
Mtskheta–Mtianeti	0	0	0	0	29	0	1	15
Departments other than the MoLHSA	20	20	0	0	0	0	0	0
Georgia	**6751**	**3162**	**730**	**4123**	**7365**	**5123**	**318**	**4370**

Table 4.107 Diseases of the ear and mastoid process, morbidity rates, Georgia, 2007 – 2010

	All ages				In children			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
2007	27799	633.5	15382	350.5	8570	1117.0	6568	856.1
2008	32167	733.8	19900	453.9	8859	1177.7	6872	913.6
2009	42031	952.9	28289	641.3	13682	1817.2	11621	1543.5
2010	**41059**	**922.1**	**27902**	**626.6**	**12559**	**1660.1**	**10622**	**1404.1**

Table 4.108 Diseases of the ear and mastoid process, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Diseases of the ear and mastoid process	**42031**	**952.9**	**28289**	**641.3**	**41059**	**922.1**	**27902**	**626.6**
Including								
Otitis media	18789	426.0	12587	285.4	**18200**	**408.7**	**12217**	**274.4**

Table 4.109 Diseases of the ear and mastoid process in children, morbidity rates, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Diseases of the ear and mastoid process	**13682**	**1817.2**	**11621**	**1543.5**	**12559**	**1660.1**	**10622**	**1404.1**
Including								
Otitis media	6621	879.4	5333	708.3	6216	821.7	5027	664.5

Table 4.110 Diseases of the ear and mastoid process, morbidity rates by regions, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	4725	--	1477	--	2943	--	1210	--
Ajara	4442	1155.0	3091	803.7	6048	1556.0	3703	952.7
Tbilisi	10935	954.7	6885	601.1	9025	779.7	5709	493.2
Kakheti	3099	768.8	2240	555.7	3303	815.0	2219	547.5
Imereti	8293	1189.6	6444	924.4	8301	1181.8	6501	925.5
Samegrelo	2926	621.2	1718	364.8	3156	663.6	1938	407.5
Shida Kartli	2265	733.0	1917	620.4	2373	761.1	1726	553.6
Kvemo Kartli	1874	378.1	1595	321.8	1811	360.2	1543	306.9
Guria	1025	735.8	883	633.9	1019	727.3	845	603.1
Samtskhe–Javakheti	784	373.9	600	286.1	1027	484.4	743	350.5
Mtskheta–Mtianeti	507	468.1	400	369.3	903	827.7	765	701.2
Racha–Lechkhumi and Kvemo Svaneti	352	737.9	246	515.7	438	922.1	297	625.3
Departments other than the MoLHSA	804	--	793	--	712	--	703	--
Georgia	**42031**	**952.9**	**28289**	**641.3**	**41059**	**922.1**	**27902**	**626.6**

Table 4.111 Diseases of the ear and mastoid process in children, morbidity rates by regions, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	826	--	518	--	534	--	421	--
Ajara	2084	3172.0	1741	2649.9	2425	3674.2	1830	2772.7
Tbilisi	3051	1560.6	2700	1381.1	2140	1088.0	1920	976.1
Kakheti	911	1324.1	697	1013.1	915	1328.0	809	1174.2
Imereti	2496	2097.5	2180	1831.9	2149	1801.3	1826	1530.6
Samegrelo	1026	1276.1	748	930.3	1125	1392.3	879	1087.9
Shida Kartli	1158	2197.3	1089	2066.4	863	1628.3	739	1394.3
Kvemo Kartli	897	1060.3	824	974.0	949	1111.2	888	1039.8
Guria	669	2810.9	634	2663.9	635	2668.1	595	2500.0
Samtskhe–Javakheti	282	787.7	253	706.7	388	1077.8	337	936.1
Mtskheta–Mtianeti	184	994.6	155	837.8	321	1735.1	291	1573.0
Racha–Lechkhumi and Kvemo Svaneti	98	1209.9	82	1012.3	105	1296.3	78	963.0
Departments other than the MoLHSA	0	--	0	--	10	--	9	--
Georgia	**13682**	**1817.2**	**11621**	**1543.5**	**12559**	**1660.1**	**10622**	**1404.1**

Table 4.112 Diseases of the ear and mastoid process, hospital discharges, Georgia, 2009 – 2010

	2009		2010	
	Number of discharges – all ages	In children	Number of discharges – all ages	In children
Ajara	372	4	739	184
Tbilisi	131	27	324	8
Kakheti	2	0	3	0
Imereti	112	78	110	55
Samegrelo	4	0	1	0
Shida Kartli	0	0	0	0
Kvemo Kartli	115	51	99	35
Guria	1	0	0	0
Samtskhe–Javakheti	0	0	0	0
Mtskheta–Mtianeti	0	0	3	0
Racha–Lechkhumi	0	0	0	0
Departments other than the MoLHSA	16	0	10	0
Georgia	**753**	**160**	**1289**	**282**

Table 4.113 In-patient ear surgeries, Georgia, 2007 – 2010

	2007	2008	2009	2010
Total number – all ages	**187**	**245**	**308**	**427**
Including in children	48	15	3	37

Table 4.114 In-patient ear surgeries by to regions, Georgia, 2009-2010*

	2009		2010	
	Total number – all ages	In children	Total number – all ages	In children
Ajara	72	1	37	0
Tbilisi	210	2	380	37
Kakheti	7	0	0	0
Imereti	13	0	10	0
Samegrelo	6	0	0	0
Kvemo Kartli	0	0	0	0
Departments other than the MoLHSA	0	0	0	0
Georgia	**308**	**3**	**427**	**37**

Table 4.115 Diseases of the circulatory system, morbidity rates, Georgia, 1988 – 2009

	All ages				In children aged 0-15			
	Number of cases registered by the end of the year	Prevalence*	Number of new cases	Incidence	Number of cases registered by the end of the year	Prevalence*	Number of new cases	Incidence
1988	279125	5171.9	36166	670.1	6765	529.0	1521	118.9
1990	265255	4890.0	43438	800.8	6837	534.3	2075	162.2
1995	169075	3526.7	23251	485.0	4299	432.0	894	89.8
1996	113734	2433.1	16523	353.5	2911	307.0	1228	129.5
2000	155373	3503.2	44475	1002.8	3095	328.0	1223	134.5
2001	176678	3987.3	57485	1297.3	3445	380.6	1226	132.6
2002	187827	4296.6	56810	1299.6	3727	406.9	1321	144.2
2003	208472	4768.9	64140	1467.2	4049	442.1	1731	204.7
2004	235429	5385.5	70648	1616.1	5395	638.0	1614	176.2
2005	256981	5892.2	82533	1888.0	5214	634.3	1594	174.0
2006	282701	6427.9	83166	1891.0	5325	670.1	1732	218.0
2007	288964	6584.6	71198	1622.4	5181	675.3	1201	156.5
2008	306573	6993.3	74379	1696.7	5102	678.3	1250	166.2
2009	326421	7400.3	96038	2177.3	4775	634.2	1359	180.5
2010	**337651**	**7582.9**	**98193**	**2205.2**	**4672**	**617.6**	**1103**	**145.8**

Table 4.116 Diseases of the circulatory system, morbidity rates by certain nosologies, Georgia, 2004 – 2010

	2004	2005	2006	2007	2008	2009	2010
Prevalence *	**5385.5**	**5892.2**	**6427.9**	**6584.6**	**6993.3**	**7400.3**	**7582.9**
Incidence	**1616.1**	**1888.0**	**1891.0**	**1622.4**	**1696.7**	**2177.3**	**2205.2**
Including							
Rheumatic diseases *Prevalence*	282.8	307.2	377.8	351.8	341.7	314.0	289.2
Incidence	76.0	82.7	100.0	87.4	72.9	76.9	124.3
Hypertensive diseases *Prevalence*	2609.6	2962.6	3329.9	3441.4	3719.8	4088.3	4335.9
Incidence	801.9	950.7	917.4	803.5	814.0	1109.4	1182.5
Ischaemic heart diseases *Prevalence*	1637.2	1857.8	1955.7	1868.7	1951.9	1981.8	1993.7
Incidence	449.8	545.7	569.9	427.5	429.8	521.6	558.5
Cerebrovascular diseases *Prevalence*	215.3	255.9	261.1	274.0	281.2	316.8	333.7
Incidence	107.8	111.3	116.9	88.2	101.3	123.9	112.7

* *There were no ear surgeries registered in other regions*

* *Prevalence – total number of patients registered by the end of the reporting year per 100 000 population*

Table 4.117 Diseases of the circulatory system in children, morbidity rates by certain nosologies, Georgia, 2004 – 2010

	2004	2005	2006	2007	2008	2009	2010
Prevalence	**638.0**	**634.3**	**670.1**	**675.3**	**678.3**	**634.2**	**617.6**
Incidence	176.2	174.0	218.0	156.5	166.2	180.5	145.8
Including							
Rheumatic diseases *Prevalence*	199.9	231.4	333.7	315.7	308.2	273.1	252.0
Incidence	57.7	82.1	81.4	53.2	51.0	33.3	63.0
Hypertensive diseases *Prevalence*	3.5	4.4	4.9	5.6	6.5	8.0	9.0
Incidence	2.6	3.4	2.4	0.8	1.3	5.7	3.0
Cerebrovascular diseases *Prevalence*	0.6	2.7	6.9	2.6	1.7	1.6	2.0
Incidence	0.5	0.3	5.5	0.5	1.6	1.1	0.9

Table 4.118 Diseases of the circulatory system according to regions, Georgia, 2010

	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence
Abkhazia	11065	--	1925	--
Ajara	19372	4983.8	8013	2061.5
Tbilisi	133031	11493.0	20172	1742.7
Kakheti	31386	7743.9	10092	2490.0
Imereti	53830	7663.7	21832	3108.2
Samegrelo and Zemo Svaneti	25404	5341.5	6964	1464.3
Shida Kartli	17274	5540.1	8566	2747.3
Kvemo Kartli	17444	3469.4	5528	1099.4
Guria	4439	3168.5	1051	750.2
Samtskhe–Javakheti	9548	4503.8	5117	2413.7
Mtskheta–Mtianeti	6610	6058.7	3465	3176.0
Racha–Lechkhumi and Kvemo Svaneti	7789	16397.9	2192	4614.7
Departments other than the MoLHSA	459	--	3276	--
Georgia	**337651**	**7582.9**	**98193**	**2205.2**

Table 4.119 Diseases of the circulatory system, according to certain nosologies, Georgia, 2010

	Cases registered by the end of the year				New cases			
	All ages		In children		All ages		In children	
	Number	%	Number	%	Number	%	Number	%
Diseases of the circulatory system	**337651**	**100**	**4672**	**100**	**98193**	**100**	**1103**	**100**
Including								
Acute rheumatic fever	3350	1.0	482	10.3	3401	3.5	425	38.5
Chronic rheumatic heart diseases	9526	2.8	1423	30.5	2133	2.2	55	5.0
Hypertensive diseases	193071	57.2	65	1.4	52653	53.6	24	2.2
Ischaemic heart diseases	88774	26.3	0	0	24867	25.3	0	0
Pulmonary heart disease and diseases of pulmonary circulation	1323	0.4	7	0.1	747	0.8	5	0.5
Cerebrovascular diseases	14861	4.4	13	0.3	5020	5.1	7	0.6
Diseases of arteries, arterioles and capillaries	5215	1.5	11	0.2	2401	2.4	14	1.3
Other diseases of circulatory system	21531	6.4	2671	57.2	6971	7.1	573	51.9

Table 4.120 Hypertensive diseases according to regions, Georgia, 2010

	Number of registered cases by the end of the year	Prevalence	Number of new cases	Incidence
Abkhazia	7707	--	1023	--
Ajara	12872	3311.6	5068	1303.8
Tbilisi	61582	5320.3	9240	798.3
Kakheti	18821	4643.7	5368	1324.5
Imereti	34452	4904.9	10421	1483.6
Samegrelo and Zemo Svaneti	15783	3318.5	4021	845.5
Shida Kartli	11170	3582.4	5751	1844.5
Kvemo Kartli	12645	2514.9	3232	642.8
Guria	2671	1906.5	605	431.8
Samtskhe–Javakheti	6146	2899.1	2939	1386.3
Mtskheta–Mtianeti	4679	4288.7	2270	2080.7
Racha–Lechkhumi and Kvemo Svaneti	4192	8825.3	1037	2183.2
Departments other than the MoLHSA	351	--	1678	--
Georgia	**193071**	**4335.9**	**52653**	**1182.5**

Table 4.121 Ischaemic heart diseases, distribution by certain nosologies, Georgia, 2010

	Cases registered by the end of the year		New cases	
	Total number	%	Total number	%
Ischaemic heart diseases	**88774**	**100**	**24867**	**100**
Including				
Angina pectoris	29929	33.7	9699	39
Acute myocardial infarction	668	0.8	1546	6
Other acute ischaemic heart diseases	8116	9.1	4227	17
Other ischaemic heart diseases	50061	56.4	9395	38

Table 4.122 Rheumatic diseases, morbidity rates, Georgia, 2010

	Number of cases registered by the end of the year	Prevalence	Number of new cases	Incidence
Rheumatic diseases	**12876**	**289.2**	**5534**	124.3
Acute rheumatic fever	3350	75.2	3401	76.4
Including rheumatic fever with heart involvement	947	21.3	333	7.5
Chronic rheumatic heart diseases	9526	213.9	2133	47.9

Table 4.123 Diseases of the circulatory system, hospital discharges and case fatality rates by certain nosologies, Georgia, 2010

	Total number – all ages	In children	Case fatality rate (%)
All cases	**43907**	**330**	**6.3**
Including			
Acute rheumatic fever	172	34	1.7
Including rheumatic fever with heart involvement	100	23	2.0
Chronic rheumatic heart diseases	411	11	2.9
Hypertensive diseases	2909	0	0.5
Ischaemic heart diseases	21447	0	4.5
Including: Angina pectoris	8137	0	0.7
Acute myocardial infarction	5790	0	9.4
Recurrent myocardial infarction	561	0	5.9
Other acute ischaemic heart diseases	2689	0	7.7
Chronic ischaemic heart disease	4270	0	2.9
Pulmonary heart disease and diseases of pulmonary circulation	654	1	21.3
Cerebrovascular diseases	7383	9	15.5
Including: Subarachnoid haemorrhage	1359	0	19.7
Intracerebral and other nontraumatic intracranial haemorrhages	1449	9	16.8
Cerebral infarction	1902	0	9.9
Occlusion and stenosis of precerebral and cerebral arteries, not resulting in cerebral infarction	307	0	1.9
Other cerebrovascular diseases	114	0	0.1

Table 4.124 Diseases of the circulatory system, hospital discharges and case fatality rate by regions, Georgia, 2010

	Total number of discharges	Including hospital deaths	Case fatality rate (%)
Ajara	3520	252	7.2
Tbilisi	22497	1348	6.0
Kakheti	2168	169	7.8
Imereti	7031	415	5.9
Samegrelo and Zemo Svaneti	2484	107	4.3
Shida Kartli	1184	112	9.5
Kvemo Kartli	2380	116	4.9
Guria	642	49	7.6
Samtskhe–Javakheti	864	95	11.0
Mtskheta–Mtianeti	646	66	10.2
Racha–Lechkhumi and Kvemo Svaneti	253	7	2.8
Departments other than the MoLHSA	238	11	4.6
Georgia	**43907**	**2747**	**6.3**

Table 4.125 Surgeries on the circulatory system, Georgia, 2007 – 2010

	2007		2008		2009		2010	
	Total	Case fatality rate (%)	Total	Case fatality rate (%)	Total	Case fatality rate (%)	Total	Case fatality rate (%)
Operations on the heart	**831**	**3.6**	**1253**	**4.6**	**1373**	**3.5**	**1382**	**4.3**
Including								
On open heart	428	4.2	732	5.2	788	5.2	546	0.0
Due to congenital malformations	51	17.6	65	9.2	162	2.5	148	18.9
Implantation of a cardio stimulator	183	1.1	250	0.8	112	0.9	157	0.0
Endovascular balloon dilatation	145	0	195	1.0	187	0	218	0.0
Operations on the blood vessels	**2466**	**1.3**	**3207**	**0.3**	**3957**	**0.5**	**4649**	**0.3**
Including								
On arteries	437	0.9	315	0.6	732	1.9	658	0.8
On veins	595	0	951	0.1	1678	0.1	1669	0.1
On lymphatic vessel	23	4.3	76	0	24	0	77	0.0
Endovascular	811	1.6	1449	0.3	1216	0.2	1785	0.1

Table 4.126 Diseases of the respiratory system, Georgia, 1995 – 2010

	All ages				Children aged 0-15			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
1995	253640	5290.5	168928	3523.6	123206	12381.3	98891	9937.8
1996	214753	4594.1	156414	3346.1	119845	12637.9	95268	10046.2
2000	215841	4848.1	150606	3382.8	95182	10464.6	76566	8417.9
2001	225259	5083.7	156535	3532.7	101740	11238.8	79996	8836.9
2002	260808	5966.1	188241	4306.1	129307	14117.3	105717	11541.9
2003	304217	7027.6	236091	5453.8	157730	18655.2	137155	16221.8
2004	306984	7022.3	235532	5387.9	161811	17666.0	139364	15215.3
2005	328310	7510.2	249115	5698.6	177023	19326.8	151521	16542.6
2006	381538	8675.3	313784	7134.7	203398	25600.8	182795	23007.6
2007	351087	8000.3	288793	6580.8	184920	24103.2	169776	22129.3
2008	362824	8276.5	299800	6838.8	184384	24512.6	169762	22568.7
2009	505340	11456.6	447518	10145.7	259136	34418.4	246604	32753.9
2010	**494194**	**11098.5**	**439289**	**9865.5**	**256897**	**33958.6**	**244385**	**32304.7**

Table 4.127 Diseases of the respiratory system according to regions, Georgia, 2010

	Number of registered cases		Prevalence		Number of new cases		Incidence	
	All ages	In children	All ages	In children	All ages	In children	All ages	In children
Abkhazia	16973	9350	--	--	13838	8640	--	--
Ajara	37896	17001	9749.4	25759.1	33655	16357	8658.3	24783.3
Tbilisi	138289	83590	11947.2	42496.2	119070	76653	10286.8	38969.5
Kakheti	49541	22504	12223.3	32661.8	44985	21958	11099.2	31869.4
Imereti	78851	41455	11225.9	34748.5	70972	40353	10104.2	33824.8
Samegrelo	32507	14705	6834.9	18199.3	27056	13883	5688.8	17181.9
Shida Kartli	42038	22135	13482.4	41764.2	39105	21625	12541.7	40801.9
Kvemo Kartli	28563	16168	5680.8	18932.1	26622	15545	5294.7	18202.6
Guria	16803	7994	11993.6	33588.2	15703	7747	11208.4	32550.4
Samtskhe–Javakheti	21532	11090	10156.6	30805.6	19300	10946	9103.8	30405.6
Mtskheta–Mtianeti	18595	8262	17044.0	44659.5	17454	8114	15998.2	43859.5
Racha–Lechkhumi and Kvemo Svaneti	5940	2044	12505.3	25234.6	5225	2001	11000.0	24703.7
Departments other then the MoLHSA	6666	599	--	--	6304	563	--	--
Georgia	**494194**	**256897**	**11098.5**	**33958.6**	**439289**	**244385**	**9865.5**	**32304.7**

Table 4.128 Diseases of the respiratory system by certain nosologies, Georgia, 2010

	All ages		In children	
	Prevalence	Incidence	Prevalence	Incidence
Total number of diseases of the respiratory system	**11098.5**	**9865.5**	**33958.6**	**32304.7**
Including				
Acute upper respiratory infections	6780.4	6735.3	24937.1	24809.0
Pneumonia	680.8	663.1	1401.6	1379.1
Other lower respiratory infections	1050.6	1032.2	2674.8	2631.9
Other diseases of upper respiratory tract	957.9	599.7	2440.4	1466.6
Including allergic rhinitis	255.1	162.3	429.3	283.5
Chronic lower respiratory diseases	981.4	320.1	757.6	374.1
Including: Chronic and not specified bronchitis	424.7	168.7	387.4	247.5
Emphysema	23.1	6.4	6.1	0.8
Asthma and status asthmaticus	361.1	73.8	220.6	59.5
Other chronic obstructive pulmonary disease	93.5	38.1	64.4	16.7
Bronchoectasis	7.5	2.7	0.4	0.1
Lung diseases due to external agents	8.1	2.4	3.8	0.9
Other respiratory diseases principally affecting the interstitium	10.2	5.0	9.1	7.3
Suppurative and necrotic conditions of lower respiratory tract	2.8	1.9	3.7	3.6
Other diseases of the respiratory system	100.4	61.5	149.2	122.9

Table 4.129 Diseases of the respiratory system according to certain nosologies, Georgia, 2010

	All ages				Children			
	Number of registered cases	%	Number of new cases	%	Number of registered cases	%	Number of new cases	%
Total number of diseases of the respiratory system	**494194**	**100**	**439289**	**100**	**256897**	**100**	**244385**	**100**
Including								
Acute upper respiratory infections	301916	61.1	299910	68.3	188649	73.4	187680	76.8
Pneumonia	30314	6.1	29525	6.7	10603	4.1	10433	4.3
Other lower respiratory infections	46781	9.5	45964	10.5	20235	7.9	19910	8.1
Other diseases of upper respiratory tract	42655	8.6	26703	6.1	18462	7.2	11095	4.5
Including allergic rhinitis	11359	2.3	7225	1.6	3248	1.3	2145	0.9
Chronic lower respiratory diseases	43698	8.8	14252	3.2	5731	2.2	2830	1.2
Including: Chronic and not specified bronchitis	18909	3.8	7510	1.7	2931	1.1	1872	0.8
Emphysema	1029	0.2	285	0.1	46	0.02	6	0.0
Asthma and status asthmaticus	16078	3.3	3285	0.7	1669	0.6	450	0.2
Other chronic obstructive pulmonary disease	4162	0.8	1698	0.4	487	0.2	126	0.1
Bronchoectasis	335	0.1	118	0.02	3	0.0	1	0.0
Lung diseases due to external agents	361	0.1	106	0.02	29	0.01	7	0.0
Other respiratory diseases principally affecting the interstitium	455	0.1	223	0.1	69	0.3	55	0.02
Suppurative and necrotic conditions of lower respiratory tract	124	0.03	84	0.01	28	0.01	27	0.01
Other diseases of the respiratory system	4471	0.9	2740	0.6	1129	0.4	930	0.4

Table 4.130 Asthma and status asthmaticus according to regions, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases		Prevalence		Number of registered cases		Prevalence	
	All ages	In children	All ages	In children	All ages	In children	All ages	In children
Abkhazia	635	56	--	--	595	38	--	--
Ajara	1159	188	301.3	286.1	1339	121	344.5	183.3
Tbilisi	4370	509	381.5	260.3	4280	481	369.8	244.5
Kakheti	1193	60	295.9	87.2	1191	52	293.9	75.5
Imereti	3396	540	487.2	453.8	3522	494	501.4	414.1
Samegrelo	1843	219	391.3	272.4	1675	192	352.2	237.6
Shida Kartli	756	56	244.7	106.3	871	62	279.3	117.0
Kvemo Kartli	840	50	169.4	59.1	804	81	159.9	94.8
Guria	742	130	532.7	546.2	538	99	384.0	416.0
Samtskhe–Javakheti	399	12	190.3	33.5	445	26	209.9	72.2
Mtskheta–Mtianeti	300	9	277.0	48.6	345	11	316.2	59.5
Racha–Lechkhumi and Kvemo Svaneti	261	11	547.2	135.8	265	11	557.9	135.8
Departments other then the MoLHSA	106	0	--	--	208	1	--	--
Georgia	**16000**	**1840**	**362.7**	**244.4**	**16078**	**1669**	**361.1**	**220.6**

Table 4.131 New cases of asthma and status asthmaticus according to regions, Georgia, 2009 – 2010

	2009				2010			
	New cases		Incidence		New cases		Incidence	
	All ages	In children	All ages	In children	All ages	In children	All ages	In children
Abkhazia	61	8	--	--	85	8	--	--
Ajara	217	39	56.4	59.4	261	19	67.1	28.8
Tbilisi	889	179	77.6	91.6	695	124	60.0	63.0
Kakheti	283	12	70.2	17.4	285	21	70.3	30.5
Imereti	689	120	98.8	100.8	694	135	98.8	113.2
Samegrelo	230	51	48.8	63.4	207	37	43.5	45.8
Shida Kartli	288	36	93.2	68.3	270	22	86.6	41.5
Kvemo Kartli	261	24	52.7	28.4	248	44	49.3	51.5
Guria	102	23	73.2	96.6	86	21	61.4	88.2
Samtskhe–Javakheti	93	2	44.3	5.6	127	16	59.9	44.4
Mtskheta–Mtianeti	61	0	56.3	0	78	2	71.5	10.8
Racha–Lechkhumi and Kvemo Svaneti	46	3	96.4	37.0	44	0	92.6	0
Departments other then the MoLHSA	103	0	--	--	205	1	--	--
Georgia	**3323**	**497**	**75.3**	**66.0**	**3285**	**450**	**73.8**	**59.5**

Table 4.132 Diseases of the respiratory system, hospital discharges and case fatality rate by certain nosologies, Georgia, 2010

	All ages		In children			
			Aged 0 - 15		Aged 0 – 1	
	Number of hospital discharges	Case fatality rate, %	Number of hospital discharges	Case fatality rate, %	Number of hospital discharges	Case fatality rate, %
Diseases of the respiratory system	**62446**	**1.0**	**40963**	**1.7**	**13021**	**0.5**
Including						
Acute upper respiratory infections	17940	0.0	16939	0.03	5607	0.1
Influenza	3324	0.2	2446	0	984	0
Pneumonia	16505	1.0	7516	0.1	2677	0
Other lower respiratory infections	4872	0.1	4485	0.1	1664	0.3
Other diseases of upper respiratory tract	8217	0.0	4875	0	424	0
Including allergic rhinitis	67	0	30	0	6	0
Chronic lower respiratory diseases	3697	1.4	700	0	142	0
Including: Chronic and not specified bronchitis	958	0.2	442	0	125	0
Emphysema	2	0	0	0	0	0
Asthma and status asthmaticus	940	1.1	122	0	1	0
Other chronic obstructive pulmonary disease	1291	2.9	24	0	2	0
Bronchoectasis	61	1.6	6	0	0	0
Lung diseases due to external agents	99	11.1	0	0	0	0
Other respiratory diseases principally affecting the interstitium	486	15.0	0	0	0	0
Suppurative and necrotic conditions of lower respiratory tract	371	1.3	90	0	2	0
Other diseases of the respiratory system	2197	10.7	810	8.1	238	22.7

Table 4.133 Diseases of the respiratory system, hospital discharges and case fatality rate by regions, Georgia, 2010

	All ages		In children			
			Aged 0 - 15		Aged 0 – 1	
	Number of hospital discharges	Case fatality rate, %	Number of hospital discharges	Case fatality rate, %	Number of hospital discharges	Case fatality rate, %
Ajara	4600	0.5	3204	0.1	818	0.4
Tbilisi	20496	1.9	13417	0.5	4435	1.2
Kakheti	4804	0.7	3133	0	1106	0
Imereti	10802	0.7	6958	0.1	2203	0.1
Samegrelo	7610	0.3	5992	0	1778	0
Shida Kartli	2843	1.0	1971	0.1	711	0
Kvemo Kartli	3705	0.6	2398	0	711	0.1
Guria	1584	0.5	1222	0	305	0
Samtskhe–Javakheti	3397	0.5	1933	0.1	829	0.2
Mtskheta–Mtianeti	401	0.7	141	0	35	0
Racha–Lechkhumi and Kvemo Svaneti	1374	0.1	594	0	90	0
Departments other then the MoLHSA	830	0.5	-	-	-	-
Georgia	**62446**	**1.0**	**40963**	**0.2**	**13021**	**0.5**

Table 4.134 Influenza-like diseases, number of hospitalization by regions, Georgia, 2009 – 2010

	2009		2010	
	Number of hospitalizations	Incidence	Number of hospitalizations	Incidence
Ajara	1373	357.0	1665	428.3
Tbilisi	3520	307.3	4515	390.1
Kakheti	345	85.6	893	220.3
Imereti	1896	272.0	2483	353.5
Samegrelo	2900	615.7	4102	862.5
Shida Kartli	932	301.6	1342	430.4
Kvemo Kartli	991	199.9	773	153.7
Guria	144	103.4	147	104.9
Samtskhe–Javakheti	569	271.3	1547	729.7
Mtskheta–Mtianeti	208	192.1	249	228.2
Racha – Lechkhumi	409	857.4	645	1357.9
Departments other then the MoLHSA	369	--	361	--
Georgia	**13656**	**309.6**	**18722**	**420.4**

Table 4.135 Influenza-like diseases, rate of hospitalization by the age groups, Georgia, 2005 – 2010

	Total	*Including*						
		<1	1-4	5-14	15-19	20-29	30-59	60 +
2005	**469**	113	168	119	32	12	12	13
2006	**689**	101	227	190	36	49	65	21
2007	**5098**	1120	2160	916	120	138	332	312
2008	**7005**	1745	2859	1071	126	179	463	562
2009	**13656**	3349	4765	2 269	459	598	1018	1198
2010	**18722**	5136	7049	2516	342	578	1218	1883

Table 4.136 Surgeries on the respiratory system, Georgia, 2010

	Number of surgeries		Number of post-operation deaths	Case fatality rate (%)
	All ages	Including in children		
Respiratory system surgeries	**1162**	**97**	**16**	**1.4**
Including				
Pulmonectomy	83	0	5	6.0
Resection of a part of the lung	110	15	1	0.9
Resection of a segment of the lung	106	1	0	0
On the larynx	331	13	4	1.2
Resection of the trachea	41	1	0	0
Resection of the bronchus	0	0	0	0
Resection of the pleura	4	1	0	0

Table 4.137 Diseases of the digestive system, Georgia, 2000 – 2010

	All ages				In children aged 0-15			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
2000	81198	1823.8	27999	628.9	9900	1088.4	5954	654.6
2001	97651	2203.8	39997	902.7	12250	1353.1	7114	785.9
2002	98854	2261.3	36380	832.2	15249	1664.8	10193	1112.8
2003	103803	2397.9	39759	918.5	11414	1350.0	6813	805.8
2004	113272	2591.1	41885	958.1	13398	1462.8	8085	882.7
2005	161769	3700.5	84876	1941.6	18123	1978.6	12609	1376.6
2006	141047	3207.1	56599	1286.9	14926	1878.7	9605	1208.9
2007	216640	4936.7	120659	2749.5	23700	3089.2	17872	2329.5
2008	198957	4538.5	92400	2107.8	24501	3257.2	16901	2246.9
2009	280680	6363.3	166087	3765.4	25164	3342.3	19030	2527.6
2010	**261977**	**5883.4**	**151848**	**3410.2**	**23718**	**3135.2**	**17296**	**2286.3**

Table 4.138 Diseases of the digestive system, prevalence by certain nosologies, Georgia, 2010

	Number of registered cases	Prevalence	In children	
			Number of registered cases	Prevalence
Diseases of the digestive system	**261977**	**5883.4**	**23718**	**3135.2**
Including				
Diseases of oral cavity, salivary glands and jaw	114377	2568.7	8565	1132.2
Diseases of oesophagus, stomach and duodenum	60665	1362.4	4578	605.2
Including: gastric and duodenal peptic ulcers	17732	398.2	168	22.2
gastritis and duodenitis	39127	878.7	3190	421.7
Liver diseases	5504	123.6	46	6.1
Disorders of gallbladder, biliary tract and pancreas	59712	1341.0	3638	480.9
Including: cholelithiasis and cholecystits	47210	1060.2	2202	291.1
Acute pancreatitis and other disorders of pancreas	2537	57.0	15	2.0

Table 4.139 Diseases of the digestive system, incidence by certain nosologies, Georgia, 2010

	Number of new cases	Incidence	In children	
			Number of new cases	Incidence
Diseases of the digestive system	**151848**	**3410.2**	**17296**	**2286.3**
Including				
Diseases of oral cavity, salivary glands and jaw	98582	2213.9	8209	1085.1
Diseases of oesophagus, stomach and duodenum	22908	514.5	3053	403.6
Including: gastric and duodenal peptic ulcers	4574	102.7	80	10.6
Gastritis and duodenitis	15995	359.2	2169	286.7
Liver diseases	2235	50.2	16	2.1
Disorders of gallbladder, biliary tract and pancreas	17913	402.3	1713	226.4
Including: cholelithiasis and cholecystits	13758	309.0	1143	151.1
Acute pancreatitis and other disorders of pancreas	938	21.1	7	0.9

Table 4.140 Diseases of the digestive system, incidence rate by regions, Georgia 2009 – 2010

	2009				2010			
			In children				In children	
	New cases	Incidence	New cases	Incidence	New cases	Incidence	New cases	Incidence
Abkhazia	3711	--	839	--	3252	--	773	--
Ajara	7413	1927.5	1701	2589.0	5228	1345.0	1324	2006.1
Tbilisi	73150	6386.4	8628	4413.3	61529	5315.7	7084	3601.4
Kakheti	8405	2085.1	1495	2173.0	8664	2137.7	1270	1843.3
Imereti	22458	3221.6	1561	1311.8	21790	3102.2	1543	1293.4
Samegrelo and Zemo Svaneti	8373	1777.7	1227	1526.1	7895	1660.0	1178	1457.9
Shida Kartli	7854	2541.7	981	1861.5	7147	2292.2	1040	1962.3
Kvemo Kartli	5567	1123.1	847	1001.2	5325	1059.1	961	1125.3
Guria	2489	1786.8	795	3340.3	1536	1096.4	595	2500.0
Samtskhe–Javakheti	2977	1419.6	288	804.5	7638	3602.8	896	2488.9
Mtskheta–Mtianeti	2517	2324.1	537	2902.7	2841	2604.0	496	2681.1
Racha–Lechkhumi and Kvemo Svaneti	675	1415.1	92	1135.8	665	1400.0	88	1086.4
Departments other then the MoLHSA	20498	--	39	--	18338	--	48	--
Georgia	**166087**	**3765.4**	**19030**	**2527.6**	**151848**	**3410.2**	**17296**	**2286.3**

Table 4.141 Diseases of the digestive system, hospital discharges and case fatality rate by certain nosologies, Georgia, 2010

	Number of hospital discharges	Including deaths	Case fatality rate, %	In children	Including hospital deaths	Case fatality rate, %
Diseases of the digestive system	**34613**	**587**	**1.7**	**4002**	**4**	**0.1**
Including						
Diseases of oral cavity, salivary glands and jaw	621	1	0.2	291	0	0
Gastric and duodenal, peptic ulcers	2440	82	3.4	11	0	0
Gastritis and duodenitis	1295	24	1.9	551	0	0
Diseases of appendix	5864	3	0.05	1013	1	0.1
Hernia	5639	16	0.3	852	1	0.1
Diseases of peritoneum	627	88	14.0	32	0	0
Diseases of liver	810	138	17.0	6	0	0
Cholecystits, cholelithiasis and other disorders of billiary tract	4973	21	0.4	11	0	0

Table 4.142 Diseases of the digestive system, hospital discharges and case fatality rate according to regions, Georgia, 2009 – 2010

	2009				2010			
	All ages		In children		All ages		In children	
	Number of discharges	Case fatality rate	Number of discharges	Case fatality rate	Number of discharges	Case fatality rate	Number of discharges	Case fatality rate
Ajara	2640	1.8	675	0.1	2677	2.1	286	0.3
Tbilisi	12542	2.2	1591	0.2	13190	2.3	1532	0.1
Kakheti	2150	1.5	243	0	2280	1.1	270	0
Imereti	4628	1.5	361	0	5812	1.0	590	0
Samegrelo and Zemo Svaneti	1259	1.7	112	0	3032	0.8	197	0
Shida Kartli	2233	1.3	324	0	2212	1.7	354	0.3
Kvemo Kartli	3023	1.0	536	0	2748	1.5	541	0
Guria	619	2.1	118	0	705	2.4	92	0
Samtskhe–Javakheti	620	0.6	225	0	870	1.3	129	0
Mtskheta–Mtianeti	146	2.1	1	0	342	1.8	6	0
Racha–Lechkhumi and Kvemo Svaneti	251	1.2	21	0	187	3.2	5	0
Departments other then the MoLHSA	583	0.9	0	0	558	0.2	0	0
Georgia	**30694**	**1.8**	**4207**	**0.1**	**34613**	**1.7**	**4002**	**0.1**

Table 4.143 Diseases of the genitourinary system, Georgia, 2000 – 2010

	All ages				In children aged 0-15			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
2000	51574	1158.4	21233	476.9	4892	537.8	3166	348.1
2001	55205	1245.9	25223	569.2	5155	569.5	3200	353.5
2002	58945	1348.4	25000	571.9	5841	637.7	3852	420.6
2003	60127	1389.0	27001	623.7	5932	701.6	4073	481.7
2004	69913	1599.3	31485	720.2	6895	752.8	4671	510.0
2005	70913	1622.2	31644	723.9	7013	765.7	4914	536.5
2006	79722	1812.7	40356	917.6	6136	772.3	4064	511.5
2007	79233	1805.5	33772	769.6	5635	734.5	3599	469.1
2008	91904	2096.4	48298	1101.7	5861	779.2	3878	515.6
2009	112647	2553.8	64652	1465.7	7981	1060.0	6152	817.1
2010	**121634**	**2731.6**	**71952**	**1615.9**	**7193**	**950.8**	**5582**	**737.9**

Table 4.144 Diseases of the genitourinary system, Georgia, 2009 – 2010

	2009		2010	
	Number of registered cases	% from the total number of cases	Number of registered cases	% from the total number of cases
Diseases of the genitourinary system	**112647**	**100**	**121634**	**100**
Including				
Glomerulonephritis, nephritic and nephrotic syndromes	8158	7.2	8003	6.6
Chronic tubulo-interstitial nephritis (kidney infections)	6904	6.1	5804	4.8
Renal failure	1408	1.2	1528	1.3
Urolithiasis	12103	10.7	12977	10.7
Diseases of male genital organs	16670	14.8	17622	14.5
Including: Hyperplasia of prostate	5897	5.2	6815	5.6
Inflammatory diseases of prostate	5027	4.5	5375	4.4
Male infertility	729	0.6	519	0.4
Diseases of female genital organs	52538	46.6	61794	50.8
Including: Salpingitis, oophoritis	10470	9.3	12111	10.0
Endometriosis	2257	2.0	2583	2.1
Erosion and ectropion of cervix uteri	8533	7.6	9190	7.6
Menstruation disorders	9073	8.1	10920	9.0
Menopausal and other perimenopausal disorders	6247	5.5	7532	6.2
Female infertility	2867	2.5	3130	2.6

Table 4.145 Diseases of the genitourinary system according to regions, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	6805	--	3062	--	5405	--	2529	--
Ajara	12276	3191.9	6661	1731.9	10944	2815.5	5663	1456.9
Tbilisi	30399	2654.0	16005	1397.3	36407	3145.3	21533	1860.3
Kakheti	8783	2178.9	5041	1250.6	8708	2148.5	4677	1154.0
Imereti	17546	2517.0	10461	1500.6	18551	2641.1	11098	1580.0
Samegrelo	10570	2244.2	5551	1178.6	11284	2372.6	6006	1262.8
Shida Kartli	5555	1797.7	3826	1238.2	8522	2733.2	6078	1949.3
Kvemo Kartli	6493	1309.9	4397	887.0	6475	1287.8	4717	938.1
Guria	2718	1951.2	1690	1213.2	2731	1949.3	1650	1177.7
Samtskhe–Javakheti	3718	1773.0	2407	1147.8	3930	1853.8	2430	1146.2
Mtskheta–Mtianeti	2905	2682.4	1950	1800.6	3960	3629.7	2125	1947.8
Racha–Lechkhumi and Kvemo Svaneti	1325	2777.8	511	1071.3	1342	2825.3	702	1477.9
Departments other then the MoLHSA	3554	--	3090	--	3375	--	2744	--
Georgia	**112647**	**2553.8**	**64652**	**1465.7**	**121634**	**2731.6**	**71952**	**1615.9**

Table 4.146 Diseases of the genitourinary system in children by regions, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	553	--	312	--	613	--	362	--
Ajara	1073	1633.2	846	1287.7	754	1142.4	553	837.9
Tbilisi	2452	1254.2	1775	907.9	2491	1266.4	1853	942.0
Kakheti	647	940.4	520	755.8	561	814.2	487	706.8
Imereti	857	720.2	702	589.9	899	753.6	754	632.0
Samegrelo	520	646.8	371	461.4	505	625.0	366	453.0
Shida Kartli	809	1535.1	690	1309.3	330	622.6	286	539.6
Kvemo Kartli	365	431.4	288	340.4	311	364.2	269	315.0
Guria	374	1571.4	347	1458.0	391	1642.9	353	1483.2
Samtskhe–Javakheti	142	396.6	121	338.0	169	469.4	146	405.6
Mtskheta–Mtianeti	124	670.3	123	664.9	107	578.4	97	524.3
Racha–Lechkhumi and Kvemo Svaneti	59	728.4	53	654.3	58	716.0	53	654.3
Departments other then the MoLHSA	6	--	4	--	4	--	3	--
Georgia	**7981**	**1060.0**	**6152**	**817.1**	**7193**	**950.8**	**5582**	**737.9**

Table 4.147 Diseases of the genitourinary system by certain nosologies, Georgia, 2010*

	Number of registered cases	Prevalence	Number of new cases	Incidence
Diseases of the genitourinary system	**121634**	**2731.6**	**71952**	81.3
Glomerulonephritis, nephritic and nephrotic syndromes	8003	179.7	3622	179.5
Chronic tubulo-interstitial nephritis (kidney infections)	5804	130.3	2502	15.3
Renal failure	1528	34.3	680	107.1
Urolithiasis	12977	291.4	4770	477.6
Diseases of male genital organs	17622	832,0	10115	160.1
Including: Hyperplasia of prostate	6815	321,8	3392	141.9
Inflammatory diseases of prostate	5375	253,8	3005	14.4
Male infertility	519	37.2	201	1711.2
Diseases of female genital organs	61794	2646.8	39951	326.9
Including: Salpingitis, oophoritis	12111	518.7	7633	71.7
Endometriosis	2583	110.6	1675	255.8
Erosion and ectropion of cervix uteri	9190	393.6	5972	616.5
Disorders of menstruation	10920	933.3	7213	386.1
Menopausal and other perimenopausal disorders	7532	643.8	4517	144.2
Female infertility	3130	267.5	1687	81.3

** Rates of diseases of the genitourinary system are calculated according to the target population*

Table 4.148 Diseases of the genitourinary system in children by certain nosologies, Georgia, 2010

	Number of registered cases	Prevalence	Number of new cases	Incidence
Diseases of the genitourinary system	**7193**	**950.8**	**5582**	**737.9**
Glomerulonephritis, nephritic and nephrotic syndromes	1035	136.5	658	86.8
Chronic tubulo-interstitial nephritis (kidney infections)	466	61.5	257	33.9
Renal failure	40	5.3	17	2.2
Urolithiasis	54	7.1	37	4.9
Diseases of male genital organs	1348	337.4	1258	314.9
Including: Hyperplasia of prostate	5	1.3	1	0.3
Inflammatory diseases of prostate	15	3.8	14	3.5
Diseases of female genital organs	519	144.8	426	118.8
Including: Salpingitis, oophoritis	63	17.6	54	15.1
Endometriosis	0	0	0	0
Erosion and ectropion of cervix uteri	1	0.3	0	0
Disorders of menstruation	224	62.5	159	44.4

Table 4.149 Diseases of the genitourinary system, hospital discharges and case fatality rate by the regions, Georgia, 2010

	Number of discharges	Hospital deaths	Case fatality rate, %	In children aged <15		
				Number of discharges	Hospital deaths	Case fatality rate, %
Ajara	1441	11	0.8	138	0	0.0
Tbilisi	6095	70	1.1	578	2	0.3
Kakheti	723	1	0.1	26	0	0.0
Imereti	2081	14	0.7	117	0	0.0
Samegrelo	708	7	1.0	76	0	0.0
Shida Kartli	1199	1	0.1	41	0	0.0
Kvemo Kartli	212	1	0.5	8	0	0.0
Guria	195	2	1.0	3	0	0.0
Samtskhe–Javakheti	92	2	2.2	6	0	0.0
Mtskheta–Mtianeti	174	0	0.0	0	0	0.0
Racha–Lechkhumi and Kvemo Svaneti	80	0	0.0	1	0	0.0
Departments other then the MoLHSA	160	2	1.3	0	0	0.0
Georgia	**13160**	**111**	**0.8**	**994**	**2**	**0.2**

Table 4.150 Diseases of the genitourinary system, hospital discharges and case fatality rate, Georgia, 2010

	All ages			In children aged <15	
	Number of discharges	Hospital deaths		Hospital deaths	
		Total number	Case fatality rate, %	Total number	Case fatality rate, %
Diseases of the genitourinary system	**13160**	**111**	**0.8**	**994**	**0.2**
Including					
Glomerulonephritis, nephritic and nephrotic syndromes	692	12	1.7	115	0.0
Chronic tubulo-interstitial nephritis (kidney infections)	728	4	0.6	187	0.0
Urolithiasis	995	3	0.3	25	0.0
Prostate disorders	1849	7	0.4	5	0.0

Table 4.151 Diseases of the genitourinary system, surgeries, Georgia, 2010

	Total number of surgeries	Number of surgeries in children	Number of deaths	Case fatality rate, %
Total	**56677**	**694**	**31**	**0.1**
Operations on kidneys and ureter	2311	86	11	0.5
Including: Kidney transplantation	8	0	0	0.0
Resection of kidney	92	0	0	0
Nephrectomy	384	12	8	2.1
On ureters	236	7	0	0.0
On bladder	948	11	3	0.3
On urethra	284	2	0	0.0
Operations on prostata	1441	3	6	0.4
Orchectomy	453	13	0	0.0
Operations on female genital organs	9861	14	3	0.0
Including: Uteri D&C	2186	0	0	0.0
Female sterilization	314	0	0	0.0
Amputation of uteri	1337	0	2	0.1
Extirpation of uteri	3606	1	1	0.0
Ovarian resection	939	12	0	0.0
Ovarectomia	437	1	0	0.0
Excision tissue of female external genital organs	190	0	0	0.0
Obstetrical - gynecological operations	38262	2	0	0,0

Table 4.152 Congenital malformations, deformities and chromosomal abnormalities, Georgia, 2000 - 2010

	All ages				Children aged 0-15			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
2000	5040	113.2	1195	26.8	4062	446.6	976	107.3
2001	5377	121.3	1031	23.3	4463	493.0	856	94.6
2002	5950	136.1	1276	29.2	4972	556.7	985	110.3
2003	5822	134.5	1040	24.0	4940	584.3	683	80.8
2004	6438	147.3	1192	27.3	5509	601.5	997	108.8
2005	5898	134.9	1067	24.4	4975	543.2	911	99.5
2006	5774	131.3	1261	28.7	4823	607.0	1049	132.0
2007	6185	140.9	1264	28.8	5216	679.9	1142	148.8
2008	7251	165.4	1685	38.4	6100	811.0	1318	175.2
2009	8148	184.7	1887	42.8	6749	896.4	1382	183.6
2010	**8959**	**201.2**	**2443**	**54.9**	**7547**	**997.6**	**1932**	**255.4**

Table 4.153 Congenital malformations, deformities and chromosomal abnormalities, Georgia, 2010

	Number of registered cases		Prevalence		Number of new cases		Incidence	
	All ages	Children	All ages	Children	All ages	Children	All ages	Children
Abkhazia	125	94	-	-	45	42	-	-
Ajara	145	77	37.3	116.7	30	30	7.7	45.5
Tbilisi	7311	6383	631.6	3245.0	1694	1368	146.3	695.5
Kakheti	259	200	63.9	290.3	105	90	25.9	130.6
Imereti	350	278	49.8	233.0	149	134	21.2	112.3
Samegrelo	144	117	30.3	144.8	53	51	11.1	63.1
Shida Kartli	131	92	42.0	173.6	74	45	23.7	84.9
Kvemo Kartli	144	111	28.6	130.0	107	85	21.3	99.5
Guria	210	157	149.9	659.7	77	66	55.0	277.3
Samtskhe–Javakheti	44	19	20.8	52.8	23	5	10.8	13.9
Mtskheta–Mtianeti	18	15	16.5	81.1	13	13	11.9	70.3
Racha–Lechkhumi and Kvemo Svaneti	11	3	23.2	37.0	6	2	12.6	24.7
Departments other then the MoLHSA	67	1	-	-	67	1	-	-
Georgia	**8959**	**7547**	**201.2**	**997.6**	**2443**	**1932**	**54.9**	**255.4**

Table 4.154 Congenital malformations, deformities and chromosomal abnormalities, hospital discharges and case fatality rate, Georgia, 2009-2010

	All ages			Children aged 0-15			
	Number of discharges	Number of hospital deaths	Case fatality rate, %	Number of discharges	Number of hospital deaths	Case fatality rate, %	Case fatality rate, % in children under 1 year
2009	**1725**	**62**	**3.6**	**1383**	**61**	**4.4**	**6.1**
2010	**2122**	**69**	**3.3**	**1588**	**66**	**4.2**	**9.2**

Table 4.155 Congenital malformations, deformities and chromosomal abnormalities, hospital discharges and case fatality rate by regions, Georgia, 2010

	All ages				Children aged 0-15		
	Number of discharges	Case fatality rate, %	Number of discharges	Number of deaths	Case fatality rate, %	Number of deaths in children under 1	Case fatality rate in children under 1
Ajara	38	2.6	38	1	2.6	1	14.3
Tbilisi	1883	2,4	1442	42	2.9	38	6.2
Kakheti	9	0	9	0	0	0	0
Imereti	107	15.0	76	16	21.1	15	71.4
Samegrelo	5	60.0	3	3	100.0	3	100.0
Shida Kartli	4	100.0	4	4	100.0	4	100.0
Kvemo Kartli	29	0	1	0	0	0	0
Guria	1	0	1	0	0	0	0
Samtskhe–Javakheti	9	0	9	0	0	0	0
Mtskheta–Mtianeti	3	0	3	0	0	0	0
Racha–Lechkhumi and Kvemo Svaneti	0	0	0	0	0	0	0
Departments other then the MoLHSA	34	0	0	0	0	0	0
Georgia	**2122**	**3.3**	**1586**	**66**	**4.2**	**61**	**9.2**

Table 4.156 Injury, poisoning and certain other consequences of external causes, Georgia, 2000 – 2010

	All ages				Children aged 0-15			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
2000	25785	579.2	19811	445.0	5611	600.7	4435	487.6
2001	29332	662.0	23709	535.1	6146	678.9	4979	550.0
2002	34355	785.9	28714	656.8	8172	892.2	6908	754.2
2003	34007	785.6	28741	663.9	7152	845.9	6058	716.5
2004	36948	845.2	32488	743.2	7717	842.5	6936	757.3
2005	35614	814.7	32032	732.7	7431	811.3	6804	742.8
2006	32892	747.9	29697	675.2	7174	903.0	6808	856.9
2007	32318	736.4	28715	654.3	7174	903.0	6279	818.4
2008	31088	709.2	29201	666.1	7298	970.2	6978	927.7
2009	44673	1012.8	42147	955.5	7428	986.6	7211	957.8
2010	**48522**	**1089.7**	**47302**	**1062.3**	**7361**	**973.0**	**7286**	**963.1**

Table 4.157 Injury, poisoning and certain other consequences of external causes, incidence rates and case distribution, Georgia,2010

	All ages			In children		
	Number of new cases	Incidence	%	Number of new cases	Incidence	%
Injury, poisoning and certain other consequences of external causes	**47302**	**1062.3**	**100**	**7286**	**963.1**	**100**
Including						
Fracture of skull and facial bones, neck, ribs, sternum and spine	1841	41.3	3.,9	59	7.8	0.8
Intarcranial injury	739	16.6	1.6	88	11.6	1.2
Injuries to upper and lower limbs	5062	113.7	10.7	847	112.0	11.6
Dislocation, sprain and strain of joints and ligaments	5214	117.1	11.0	978	129.3	13.4
Injuries to the thorax, intra-abdominal and pelvic organs	1033	23.2	2.2	39	5.2	0.5
Wounds, injuries of blood vessels, superficial injuries	20071	450.8	42.4	4103	542.4	56.3
Injuries of nerves and spinal cord	154	3.5	0.3	24	3.2	0.3
Burns and corrosions	1181	26.5	2.5	354	46.8	4.8
Poisoning by drugs, medicaments and biological substances, toxic effects of substances chiefly nonmedical as to source	9694	217.7	20.4	154	20.4	2.1
Including: Poisoning by drugs, medicaments and biological substances	145	3.3	0.3	34	4.5	0.5
Toxic effects of substances chiefly nonmedical as to source	267	6.0	0.6	42	5.6	0.6

Table 4.158 Injury, poisoning and certain other consequences of external causes by regions, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	1350	--	1303	--	1122	--	1121	--
Ajara	4830	1255.9	4461	1159.9	3966	1020.3	3934	1012.1
Tbilisi	5821	508.2	4562	398.3	5763	497.9	4943	427.0
Kakheti	3636	902.0	3548	880.2	3852	950.4	3741	923.0
Imereti	5584	801.0	5442	780.7	5794	824.9	5765	820.8
Samegrelo	10890	2312.1	10769	2286.4	14376	3022.7	14342	3015.6
Shida Kartli	2390	773.5	2196	710.7	2139	686.0	2137	685.4
Kvemo Kartli	2310	466.0	2291	462.2	2645	526.1	2637	524.5
Guria	1684	1208.9	1664	1194.5	1856	1324.8	1850	1320.5
Samtskhe–Javakheti	2158	1029.1	2024	965.2	2586	1219.8	2494	1176.4
Mtskheta–Mtianeti	1230	1135.7	1117	1031.4	1903	1744.3	1969	1713.1
Racha–Lechkhumi and Kvemo Svaneti	788	1652.0	785	1645.7	587	1235.8	576	1212.6
Departments other then the MoLHSA	2002	--	1985	--	1933	--	1893	--
Georgia	**44673**	**1012.8**	**42147**	**955.5**	**48522**	**1089.7**	**47302**	**1062.3**

Table 4.159 Injury, poisoning and certain other consequences of external causes in children, Georgia, 2009 – 2010

	2009				2010			
	Number of registered cases	Prevalence	Number of new cases	Incidence	Number of registered cases	Prevalence	Number of new cases	Incidence
Abkhazia	178	--	178	--	96	--	95	--
Ajara	967	1471.8	934	1421.6	797	1207.6	796	1206.1
Tbilisi	1233	630.7	1152	589.3	1322	672.1	1308	665.0
Kakheti	906	1316.9	903	1312.5	872	1265.6	860	1248.2
Imereti	1267	1064.7	1236	1038.7	1293	1083.8	1286	1078.0
Samegrelo	731	909.2	714	888.1	756	935.6	741	917.1
Shida Kartli	384	728.7	365	692.6	355	669.8	354	667.9
Kvemo Kartli	407	481.1	396	468.1	476	557.4	472	552.7
Guria	555	2331.9	553	2323.5	585	2458.0	584	2453.8
Samtskhe–Javakheti	495	1382.7	485	1354.7	504	1400.0	489	1358.3
Mtskheta–Mtianeti	207	1118.9	197	1064.9	255	1378.4	251	1356.8
Racha–Lechkhumi and Kvemo Svaneti	96	1185.2	96	1185.2	41	506.2	41	506.2
Departments other then the MoLHSA	2	--	2	--	9	--	9	--
Georgia	**7428**	**986.6**	**7211**	**957.8**	**7361**	**973.0**	**7286**	**963.1**

CHAPTER 5

MATERNAL AND CHILD HEALTH*

" The protection of the health of mothers and children is now considered as one of the most, if not the most, important functions of a health service in any country."

The MCH/family planning programme clearly plays a decisive role in attaining the health-for-all goal in the Region."

WHO, Reproductive health focus

Maternal and child health indicators are recognized as health gauges and determinants of social welfare in the whole world. Two out of eight goals of the United Nations Millennium Development Goals serve the purpose of protecting maternal and child health.

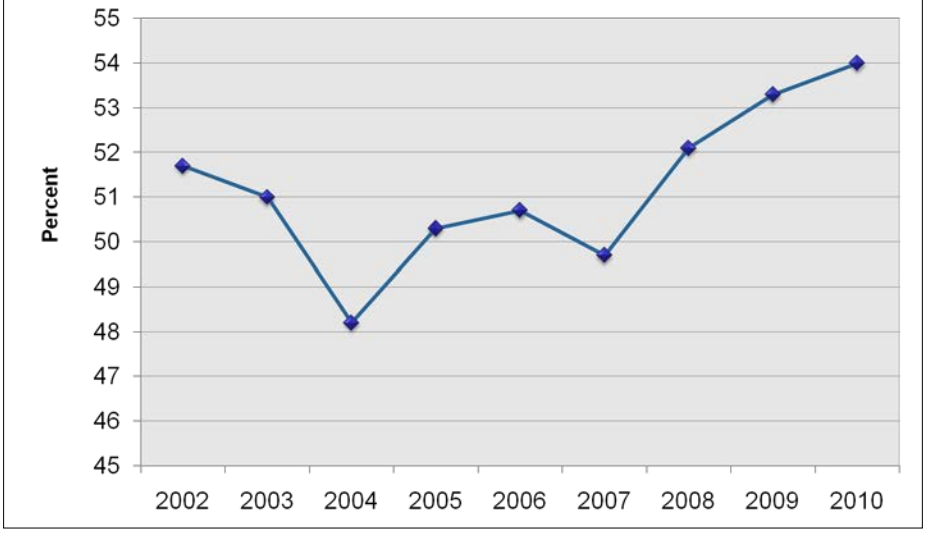
Child health, considering the characteristics of child development, is an essential part of the health of entire population and it is measured using the same methods and indicators that are applied to the evaluation of public health status. Infant health is significantly dependent on maternal health and availability of qualitative medical services for mothers and infants.

According to the data from women consultancy centers, 80 838 pregnant women were registered in Georgia in 2010. During the reporting year, 54% of these women were enrolled before the 12th week of pregnancy (53.3% in 2009). During the year, 56 200 pregnant women were taken from the enrollment lists, out of which, 91.7% carried the pregnancies to the end, in 1.5% of cases spontaneous abortions were registered (gestation age less than 22 weeks); 89% of women had term deliveries.

In 2010, 83% (78.5% - in 2009) of enrolled pregnant women had at least 4 full antenatal care visits. During these visits 92% of the expectant mothers were examined by therapists; in women enrolled during the first trimester this percent was higher - 94.5%. 96.5 % of the pregnant women were tested for Rh-factor, 94.6% - for syphilis and 88.4% - for HIV-infection. Additionally, 10.5% was referred to being tested for Hepatitis C (See Figure 5.1).

* *Data of the National Center for Disease Control and Public Health.*

Figure 5.1 **Share of pregnant women having initiated antenatal care during the first trimester, Georgia, 2002 - 2010**



Since June 2007, a screening program for pregnant women to identify carriers of hepatitis B surface antigen (HBsAg), and passive immunization against hepatitis B for newborns with high risk of infection (born to antigen-positive mothers) have been available. These activities are supported by the Rostropovich-Vishnevskaya Foundation (RVF). The immunization has been carried out with anti-hepatitis B virus immunoglobulin (HBIG).

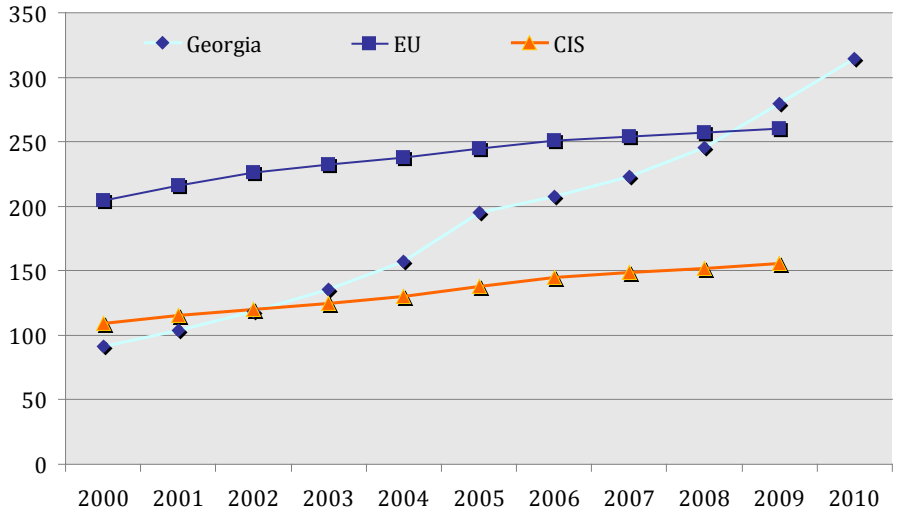
In 2010, 48 804 (87.4%) pregnant women were screened using HBs immune-ferment test-systems; 2.8% of cases were detected as antigen-positive after laboratory confirmation. 1 366 infants born to antigen-positive mothers were vaccinated with anti-hepatitis B virus immunoglobulin (coverage rate -100%).

According to the data from women consultancy centers, 7% of pregnant women were diagnosed with anemia in the first trimester; 4% - with genitourinary system diseases and 3% - with thyroid gland pathologies. During the reporting year, 2 900 (3.6%) women were hospitalized due to pregnancy related pathologies.

In 2010, 61 928 deliveries were registered by health facilities, including 99.6% of deliveries at maternity homes and departments; 63.4 percent of deliveries were physiological and 36.6 percent - pathological.

During the last decade, the increase of the number of caesarean sections was observed in the majority of developed countries. According to the WHO recommendations the “ideal rate” of caesarean sections is 15%. In 2010, 19 442 caesarean sections were performed in Georgia. It accounts for 31% of the total number of deliveries (See Figure 5.2).

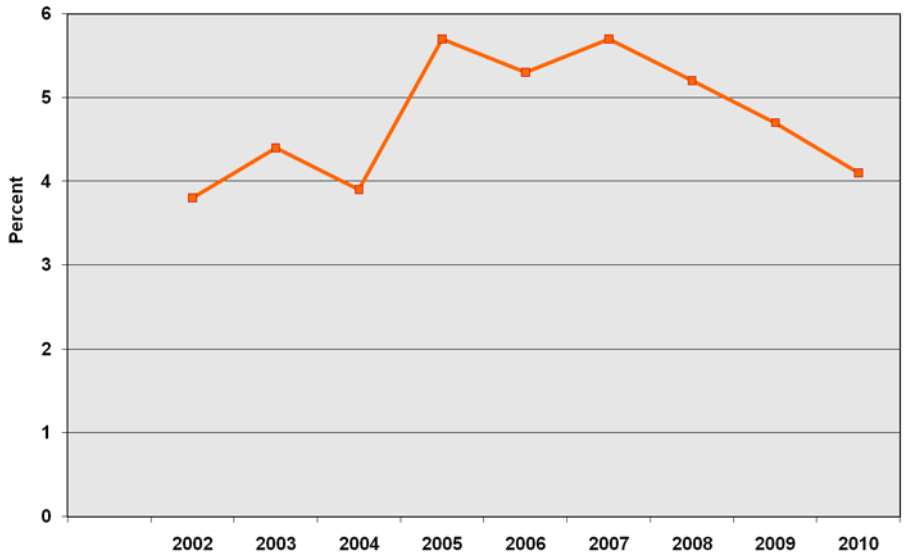
Figure 5.2 **Number of caesarean sections per 1 000 lives births, Georgia, the EU, the CIA**



Source: WHO HFADB

Besides the caesarean section ratio two more indicators should be used to evaluate the quality of the obstetric care: the trends of intra partum and post partum infections (including post caesarean section peritonitis) and obstetric traumas. The incidence rate of intra partum and post partum infections is relatively low in Georgia and has been stable during last years, and reaches up to 0.1%. Last years the share of deliveries with obstetric traumas has shown a downward trend and bottomed at 4.1% in 2010 (See Figure 5.3).

Figure 5.3 **Share of deliveries complicated by obstetric traumas, Georgia, 2002 - 2010**

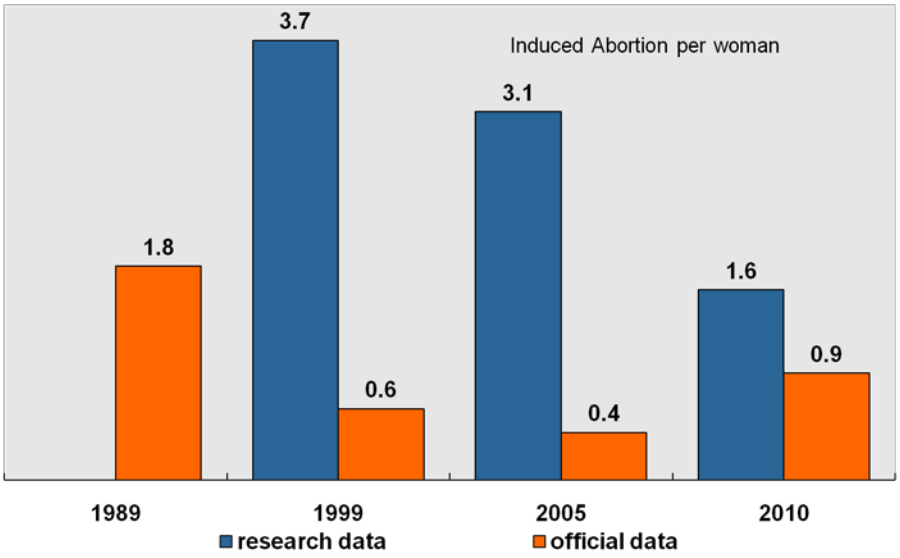


According to the data from maternity homes the cases of ***intrapartum and postpartum complications included:*** anemia (5.4%), complications due to malpresentation and

malposition of fetus (3%), pre-eclampsia and eclampsia (2.7%), and abnormalities of forces of labor (2.6%).

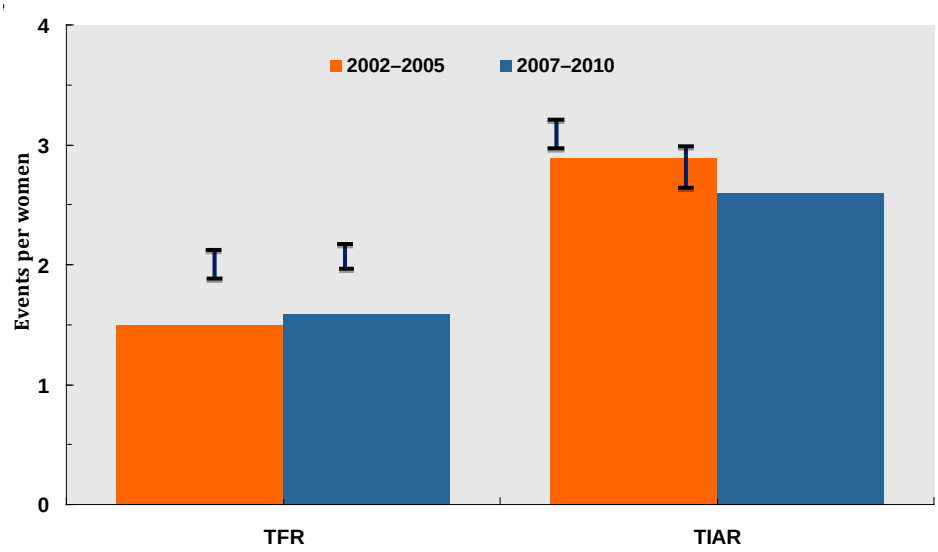
In the reporting year, 25 585 ***abortions*** were registered. In 2007-2010, according to the official data, the TIAR (total induced abortions rate) equals 0.9 per woman. This is 44% lower than the indicator shown by the 2010 Georgian Reproductive Health Survey (GeoRHS2010). Although, there is a significant improvement in comparison with the data for 1999 and 2005, when the studies identified 80% gap (See Figure 5.4).

Figure 5.4 **Trends in the Period Total Induced Abortion Rate; Survey Estimates and Governmental Sources, Georgia 1999, 2005, 2010**



According to the data of the GeoRHS2010, the decrease of the total induced abortion rate (TIAR) is accompanied by the rise of the total fertility rate – TFR (See Figure 5.5).

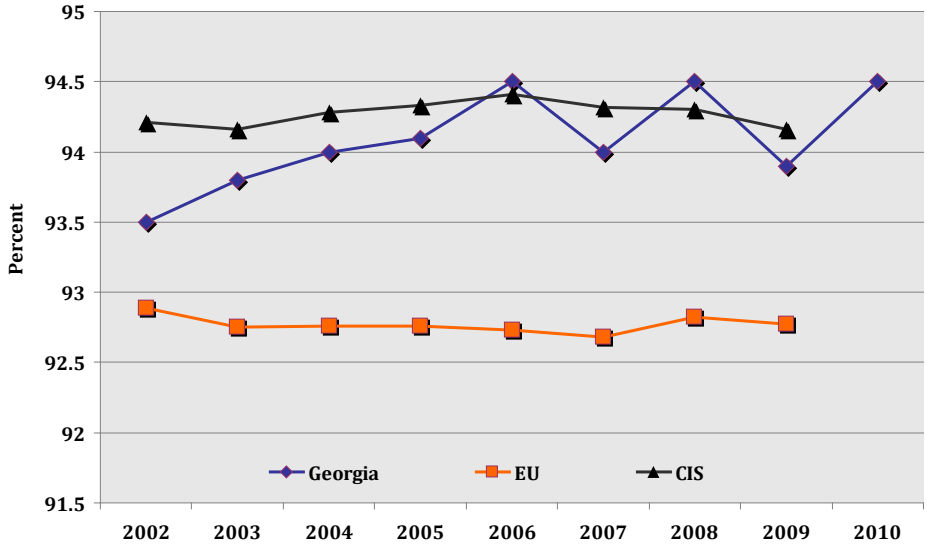
Figure 5.5 Changes in Fertility and Abortion Rate between 2002 and 2010, GeoRHS2010;



In 2010, 12 cases of maternal deaths were reported; maternal mortality rate - 19.4. Additionally during the reporting period there were registered 2 cases of late maternal deaths.

In 2010, in Georgia, there were registered 61 901 live births; 99.6% of which were delivered at in-patient facilities. 94.5% of live-born infants had a birth weight more than 2499 grams. This indicator has been stable for years (See Figure 5.6).

Figure 5.6 Percent of livebirths with a normal birth weight, Georgia, the EU, the CIS

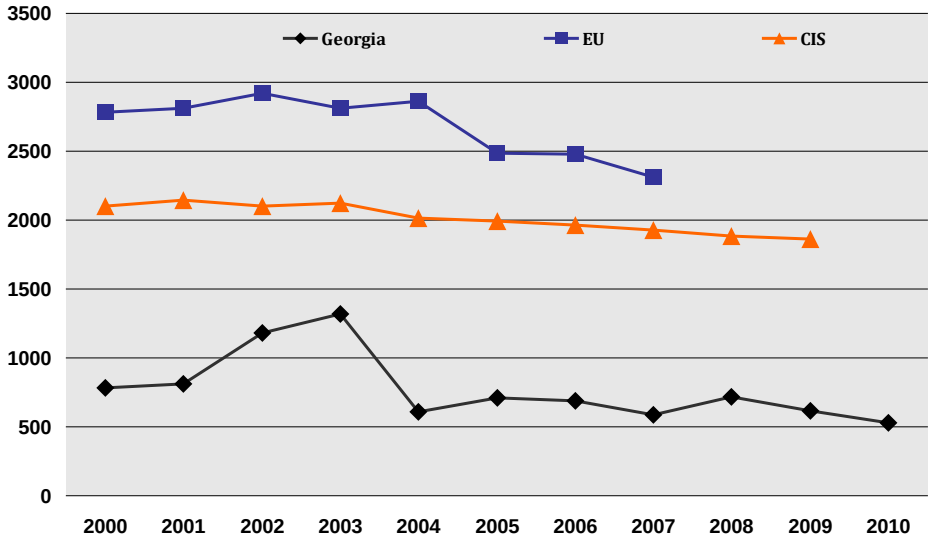


source WHO HFADB

Breastfeeding was initiated during the first hour after delivery for 69% of live-borns; 37.4% of infants were breastfed at the age of 3 months.

According to the data of maternity homes, 8.8% of infants were born sick or got sick after the birth. 92.4% of the cases were caused by certain conditions originating in the perinatal period and 6% of cases - by congenital abnormalities. Incidence of congenital abnormalities in live-borns is characterized with a downward trend and is almost four times lower than the corresponding indicator for the European Union (See Figure 5.7).

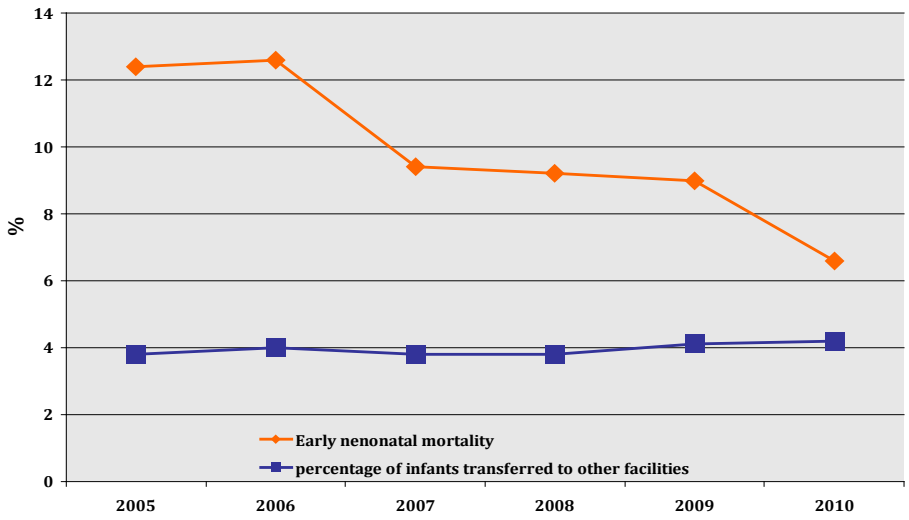
Figure 5.7 **Congenital malformations incidence rate per 100 000 livebirths, Georgia, the EU, the CIS**



source: WHO HFADB

4.2% of infants were transferred from maternity homes to the departments for premature newborns. During last years the growth of the rate mentioned afore was accompanied by the decrease of the early neonatal mortality rate (Figure 5.8).

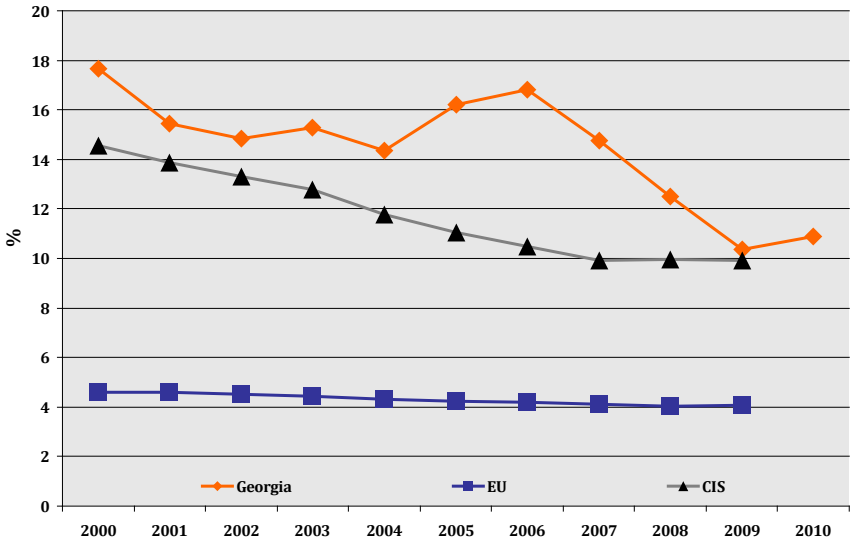
Figure 5.8 **Early neonatal mortality rate and percent of newborns transferred from maternity homes to other hospitals, Georgia, 2005 - 2010**



In 2010, there were registered 410 the early neonatal deaths (early neonatal mortality rate – 6.6), including 118 deaths at maternity homes.

During the reporting year, 682 stillbirths were registered, the stillbirth ratio per 1 000 births is 10.9. This is 2.5 times more than the respective European Union ratio and within the range the CIS countries corresponding indicator (See Figure 5.9).

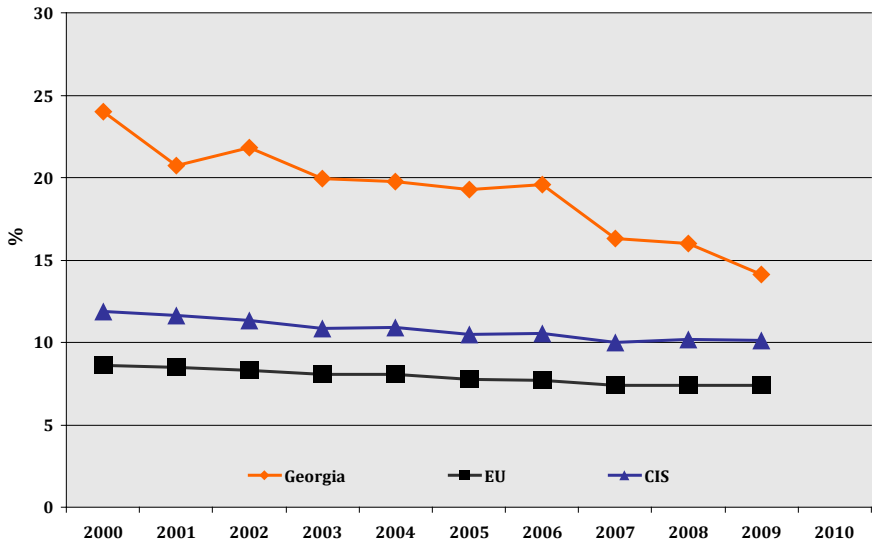
Figure 5.9 **Stillbirth ratio, Georgia, the EU, the CIS**



source: WHO HFADB

Improvement of the stillbirth ratio, which is a major component of the perinatal mortality, means also a reduction of the perinatal mortality ratio. In Georgia this indicator is characterized with a downward trend (See Figure 5.10).

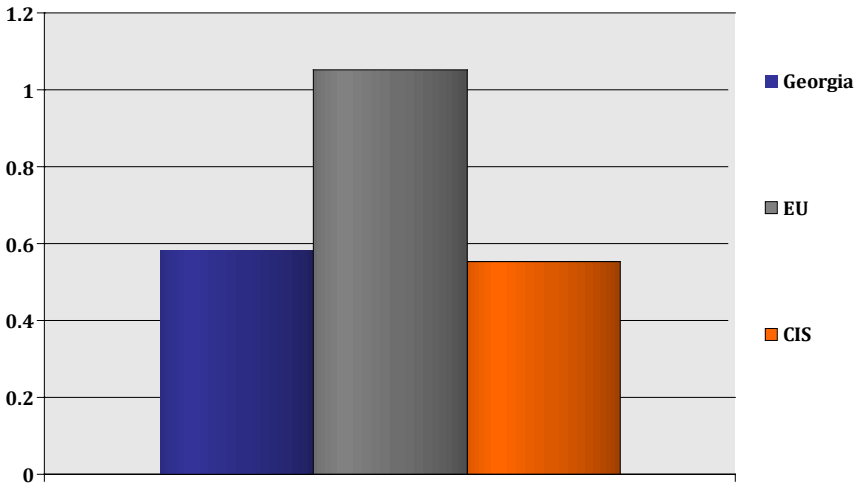
Figure 5.10 **Perinatal mortality ratio, Georgia, the EU, the CIS**



source: WHO HFADB

A large proportion of infant and under-five deaths occur soon after birth, in the neonatal period. Globally, the lower the child mortality, the higher the proportion of deaths that occur before the age of four weeks, as under-five mortality is easier to reduce. Early neonatal mortality accounts for three out of four neonatal deaths; this figure is only slightly higher in developed regions. Worldwide neonatal mortality represents more than half of overall infant mortality and over one third of under five deaths. (See Figure 5.11).

Figure 5.11 **Ratio of reported to estimated under 5 mortality rates, WHO, 2009**



Mortality rate according to the World regions and the level of development

	Neonatal mortality as % of under-five mortality	Neonatal mortality as % of infant mortality	Early neonatal mortality as % of neonatal mortality	Early neonatal mortality as % of perinatal mortality
World	36	53	75	47
More developed regions	52	63	79	37
Less developed regions	36	53	75	48
Africa	26	42	75	48
Asia	45	61	75	47
Latin America and Caribbean	42	51	77	55

In 2010, in Georgia, according to the data, provided by medical institutions, 894 children died at the age under 15 years. The majority of the cases (90.4%) were registered at hospitals.

Infant mortality accounts to 88.9% of the cases of the child mortality. Infant mortality rate was 12.0 per 1,000 livebirths. Main causes of the infant mortality belong to the following classes:

- Certain conditions originating in the perinatal period (70.2%);
- Respiratory system diseases (9.7%);
- Congenital anomalies (8.5%).

In 2010, according to the data, collected from out-patient facilities, 463 204 ***cases of diseases*** in children under the age of 15 were registered (prevalence – 61229.9), including 387 079 new cases (incidence – 51167.1).

The incidence is high in the following classes:

- respiratory system diseases - 32304.7;
- certain infectious and parasitic diseases – 5190.4;
- diseases of the digestive system – 2286.3.

During the reporting year, in children 77 107 cases of ***hospital discharges*** there were registered. Hospitalization rate was 101.9. Hospitalization rates were high in the following classes:

- respiratory system diseases – 54.0;
- certain infectious and parasitic diseases – 17.1;
- certain conditions originating in the perinatal period – 9.0.

Share of hospitalizations of infants in the total number of all children hospitalizations was 34.5%; hospitalization rate in infants - 428.3. Infant hospitalization rates were high in the following classes of diseases:

- respiratory system diseases – 209.3;
- certain conditions originating in the perinatal period – 109.7;
- certain infectious and parasitic diseases – 63.6.

Table 5.1 Births, child and maternal mortality rates (data collected from health facilities), Georgia, 2005 – 2010

	2005	2006	2007	2008	2009	2010
Total number of deliveries	47246	48181	49626	56096	61656	61928
Hospital deliveries	46537	47593	49317	55850	61441	61653
Home deliveries	709	588	309	246	215	275
Total number of live births	47022	47856	49476	56025	61677	61901
Live borns at home without further hospitalization	688	536	308	235	209	255
Total number of stillbirths	766	817	738	717	665	682
Total number of infant deaths (at the age 0-1 year)*	851	882	699	802	872	741
Total number of early neonatal deaths (at the age 0-6 days)	585	604	467	516	558	410
Total number of late neonatal deaths(at the age 7-28 days)	123	146	118	147	214	186
Total number of post neonatal deaths (at the age 29-365 days)	143	132	114	139	100	145
Total number of under-five deaths*	911	945	945	898	949	830
Total number of maternal deaths	11	11	10	8	33	12
Stillbirth rate per 1000 births	16.0	16.8	14.7	12.6	10.7	10.9
Early neonatal mortality rate per 1000 live births	12.4	12.6	9.4	9.2	9.0	6.6
Late neonatal mortality rate per 1000 live births	2.6	3.1	2.4	2.6	3.5	3.0
Perinatal mortality rate per 1000 births	28.3	29.2	24.0	21.7	19.7	17.4
Infant mortality rate per 1000 live births*	18.1	18.4	14.1	14.3	14.1	12.0
Under-five mortality rate per 1000 live births*	19.4	19.7	15.7	16.0	15.4	13.4
Maternal mortality rate per 100000 live births	23.4	23.0	20.2	14.3	52.1	19.4

Table 5.2 Births and infant deaths by the regions (data collected from health facilities), Georgia, 2010

	Number of live births	Number of stillbirths	Stillbirth ratio per 1000 births	Number of infant deaths	Infant mortality rate per 1000 live births	Number of early neonatal deaths	Early neonatal mortality rate per 1000 live births	Perinatal mortality ratio per 1000 births
Ajara	6087	55	9.0	55	9.0	29	4.8	13.7
Tbilisi	26386	396	14.8	407	15.4	178	6.7	21.4
Kakheti	3745	24	6.4	28	7.5	22	5.9	12.2
Imereti	9210	100	10.7	170	18.5	120	13.0	23.6
Samegrelo and Zemo Svaneti	4363	22	5.0	16	3.7	10	2.3	7.3
Shida Kartli	3390	35	10.2	27	8.0	24	7.1	17.2
Kvemo Kartli	4921	27	5.5	20	4.1	16	3.3	8.7
Guria	1089	0	0	2	1.8	2	1.8	1.8
Samtskhe – Javakheti	2196	20	9.0	14	6.4	9	4.1	13.1
Mtskheta – Mtianeti	439	3	6.8	1	2.3	0	0	6.8
Racha – Lechkhumi and Kvemo Svaneti	75	0	0	1	13.3	0	0	0
Georgia	61901	682	10.9	741	12.0	410	6.6	17.4

* *The total number of infant and under-five deaths includes both in-patient and out-patient deaths, registered by health facilities*

Table 5.3 Essential data on antenatal care, Georgia 2010

	Number of pregnancies taken from the enrollment lists	Pregnancy brought to the end		Pregnant women with 4 antenatal care visits	
		Number	%	Number	%
Ajara	6349	5779	91.0	5140	88.9
Tbilisi	20465	18351	89.7	14819	80.8
Kakheti	4082	3796	93.0	3282	86.5
Imereti	8907	8264	92.8	7109	86.0
Samegrelo and Zemo Svaneti	3664	3326	90.8	3047	91.6
Shida Kartli	3509	3297	94.0	3227	97.9
Kvemo Kartli	4883	4709	96.4	2986	63.4
Guria	1036	998	96.3	757	75.9
Samtskhe – Javakheti	2207	1997	90.5	1714	85.8
Mtskheta – Mtianeti	570	512	89.8	366	71.5
Racha – Lechkhumi and Kvemo Svaneti	139	104	74.8	81	77.9
Georgia	**56200**	**51511**	**91.7**	**42820**	**83.1**

Table 5.4 Essential data on antenatal care, Georgia, 2010

	Number of pregnant women who initiated antenatal care during the reporting year	Pregnant women tested for syphilis		Pregnant women tested for HIV		Pregnant women tested for Hepatitis B	
		Number	%	Number	%	Number	%
Ajara	5931	5627	94.9	5049	85.1	5008	84.4
Tbilisi	20225	19256	95.2	18367	90.8	18207	90.0
Kakheti	3941	3570	90.6	3008	76.3	3023	76.7
Imereti	8735	8630	98.8	8143	93.2	7948	91.0
Samegrelo and Zemo Svaneti	3623	3580	98.8	3463	95.6	3556	98.2
Shida Kartli	3336	3036	91.0	2320	69.5	2289	68.6
Kvemo Kartli	5162	4862	94.2	4676	90.6	4624	89.6
Guria	1042	1027	98.6	1035	99.3	1042	100.0
Samtskhe – Javakheti	2678	2162	80.7	2210	82.5	2090	78.0
Mtskheta – Mtianeti	559	541	96.8	521	93.2	445	79.6
Racha – Lechkhumi and Kvemo Svaneti	197	121	61.4	141	71.6	148	75.1
Georgia	**55853**	**52836**	**94.6**	**49357**	**88.4**	**48804**	**87.4**

Table 5.5 Livebirths and stillbirths according to the birth weight (data from maternity hospitals), Georgia, 2010

	Total	500 - 999	1000 - 1499	1500-2499	2500-3999	4000 +
Number of live births	**61646**	**123**	**335**	**2954**	**52807**	**5427**
% from the total number of livebirths	100	0.2	0.5	4.8	85.7	8.8
Number of stillbirths	**682**	**279**	**101**	**140**	**147**	**15**
% from the total number of stillbirths	100	40.9	14.8	20.5	21.6	2.2

Table 5.6 Incidence of diseases in newborns (data from maternity hospitals), Georgia, 2010

	Total number of cases	Incidence rate per 1000 live births
All diseases	**5434**	**88.1**
Including		
Certain conditions originating in the perinatal period	5023	81.5
Including: Slow fetal growth and fetal malnutrition	918	14.9
Birth trauma	247	4.0
Including: Intracranial laceration and haemorrhage due to birth injury	56	0.9
Respiratory disorders specific to the perinatal period	2192	35.6
Including: Intrauterine hypoxia and birth asphyxia	1097	17.8
Respiratory distress syndrome of newborn	962	15.6
Congenital pneumonia	11	0.2
Infections specific to the perinatal period	379	6.1
Including: Sepsis of newborn	75	1.2
Haemorrhagic disorders of fetus and newborn	124	2.0
Including: Fetal blood loss	5	0.1
Intracranial non-traumatic haemorrhage of fetus and newborn	89	1.4
Haematological disorders of fetus and newborn	459	7.4
Including: Haemolytic disease of fetus and newborn due to isoimmunization	373	6.1
Disseminated intravascular coagulation of fetus and newborn	1	0.02
Other disorders of newborn cerebral status	571	9.3
Other diseases originating in the perinatal period	133	2.2
Congenital abnormalities	326	5.3
Other diseases of newborn	85	1.4

Table 5.7 Essential data on breastfeeding, Georgia, 2009 – 2010

	2009		2010	
	Total number of breastfed infants	% from the total number of live births	Total number of breastfed infants	% from the total number of live births
Data collected from the maternity hospitals				
Breastfeeding initiated during the first hour after birth	41411	67.4	42525	69.0
Breastfeeding initiated in 1-8 hours after birth	12334	20.1	11478	18.6
Breastfeeding initiated in 8-24 hours after birth	4081	6.6	3842	6.2
Total number of the breastfed newborns	59960	97.5	60090	97.5
Data collected from the children policlinics				
Newborns breastfed at the age of 3 months	22535	36.7	28156	45.5

Table 5.8 Caesarean sections number, rate and structure, Georgia, 2009 – 2010

	2009			2010		
	Number of cases	Ratio per 1000 live births	% from the total number	Number of cases	Ratio per 1000 live births	% from the total number
All types of caesarean sections	**17722**	**287.3**	**100**	**19442**	**314.1**	**100**
	Including					
Scheduled	8498	--	48.0	10240	--	52.6
Urgent	9224	--	52.0	9212	--	47.4

Table 5.9 Caesarean sections number and indicators, Georgia, 2010

	Number of deliveries	Total number of caesarean sections	% from the total number of deliveries	Ratio per 1000 live births
Ajara	6075	2141	35.2	351.7
Tbilisi	26469	8162	30.8	309.3
Kakheti	3738	1104	29.5	294.8
Imereti	9197	3574	38.9	388.1
Samegrelo and Zemo Svaneti	4340	1854	42.7	424.9
Shida Kartli	3394	899	26.5	265.2
Kvemo Kartli	4914	1122	22.8	228.0
Guria	1085	307	28.3	281.9
Samtskhe – Javakheti	2209	175	7.9	79.7
Mtskheta – Mtianeti	432	99	22.9	225.5
Racha – Lechkhumi and Kvemo Svaneti	75	5	6.7	66.7
Georgia	**61928**	**19442**	**31.4**	**314.1**

Table 5.10 Causes of maternal mortality, Georgia, 2010

causes of deaths	ICD-X Codes	Total number
Died during pregnancy, delivery and puerperium		**12**
Including		
Pregnancy with abortive outcome	O00.x -O07.x	1
Pre-eclampsia, unspecified	O14.9	1
Eclampsia in pregnancy	O15.0	1
Postpartum haemorrhage	O72	1
Shock during or following labor and delivery	O75.1	2
Puerperal sepsis	O85	1
Obstetrical blood-clot Embolism	O88.2	2
Diseases of the respiratory system complicating pregnancy, childbirth and the puerperium	099.5	2
Including: Influenza caused by an identified virus	099.5 (J10.0)	2
Other specified diseases and conditions complicating pregnancy, childbirth and the puerperium	099.8	1

Table 5.11 Abortions and contraception, Georgia, 1995 – 2010

	Total number of live births	Abortions		Abortion ratio per 1000 live births	Number of intrauterine devices inserted	Number of women to whom hormonal contraception was prescribed
		Total number	Including mini abortions			
1995	56341	39538	7522	715.2	9538	5181
1996	53300	30003	5867	554.1	10817	3699
1997	52851	23403	5541	447.6	8171	4869
1998	49588	21018	6806	423.8	9148	6276
1999	46827	18306	6549	390.9	11539	9142
2000	46765	14951	5414	319.7	9120	7865
2001	46006	15008	5330	326.2	9032	8755
2002	45033	13908	5143	308.8	8252	8143
2003	44093	13834	5183	313.7	9084	9340
2004	46373	17210	6552	371.1	9047	10996
2005	47022	19734	6710	419.7	9643	10783
2006	47856	21204	7478	443.1	7581	10742
2007	49476	20644	7583	417.3	7548	9541
2008	56025	22062	7662	393.8	6554	12171
2009	61677	24311	8361	394.2	6408	10324
2010	**61901**	**25585**	**10621**	**413.3**	**7528**	**20620**

Table 5.12 Abortions by the age groups, Georgia, 2010

	All ages	Age groups					
		<15	15-19	20-29	30-39	40-44	>45
Total number	**25585**	**14**	**1770**	**12766**	**9262**	**1636**	**137**
Indicator	**2186.8**	**11.3**	**1091.2**	**3613.4**	**2889.0**	**1052.8**	**76.8**
Including							
Spontaneous abortions	3190	8	271	1620	1063	206	22
Induced abortions	21503	6	1438	10729	7851	1368	111
Gestational age less than 12 weeks	21412	6	1432	10686	7814	1363	111
Mini abortions (Gestational age less than 5 weeks)	10620	3	635	5222	3995	704	61
Gestational age 12-22 weeks	91	0	6	43	37	5	0
Number of the first pregnancies terminated by induced abortions	498	3	82	310	98	5	0

Table 5.13 Essential data on reproductive health*, Georgia, 2010

	Examinations			From the total number of encounters				
	Both sexes	Females	Males	Due to infertility			Due to climacteric (females)	Due to abortion
				Both sexes	Females	Males		
Ajara	3176	2925	251	186	177	9	257	264
Tbilisi	17740	17342	398	2911	2747	164	1073	263
Kakheti	1677	1590	87	59	59	0	80	93
Imereti	10452	9334	1118	696	653	43	1010	589
Samegrelo and Zemo Svaneti	5112	5038	74	213	213	0	366	11
Shida Kartli	3062	2945	117	89	86	3	169	239
Kvemo Kartli	3623	3438	185	222	209	13	278	711
Guria	831	730	101	72	72	0	120	106
Samtskhe – Javakheti	416	385	31	191	191	0	0	122
Mtskheta – Mtianeti	188	188	0	43	43	0	58	1
Racha – Lechkhumi and Kvemo Svaneti	813	813	0	7	7	0	61	11
Georgia	**48521**	**46159**	**2362**	**4718**	**4486**	**232**	**3525**	**2412**

Table 5.14 Essential data on reproductive health*, Georgia, 2010

	Encounters for a contraception method selection		
	Both sexes	Females	Males
Ajara	865	786	79
Tbilisi	2865	2784	81
Kakheti	508	467	41
Imereti	4831	4052	779
Samegrelo and Zemo Svaneti	1489	1416	73
Shida Kartli	315	312	3
Kvemo Kartli	1207	1035	172
Guria	241	140	101
Samtskhe – Javakheti	86	55	31
Mtskheta – Mtianeti	16	16	0
Racha – Lechkhumi and Kvemo Svaneti	10	10	0
Georgia	**12584**	**11224**	**1360**

Table 5.15 Child deaths registered by health facilities, Georgia, 2010

	Deaths in children under 15 years				Including							
					Deaths in children under 1				Death children under 5			
	Total number of deaths	Mortality rate per 1000 children	% of the in-patient deaths	% of the out-patient deaths	Total number of deaths	Mortality rate per 1000 live births	% of the in-patient deaths	% of the out-patient deaths	Total number of deaths	Mortality rate per 1000 live births	% of the in-patient deaths	% of the out-patient deaths
Ajara	69	104.5	82.6	17.4	55	9.0	92.7	7.3	62	10.2	87.1	12.9
Tbilisi	476	242.0	99.6	0.4	407	15.4	99.8	0.2	446	16.9	99.6	0.4
Kakheti	37	53.7	62.2	37.8	28	7.5	78.6	21.4	33	8.8	66.7	33.3
Imereti	190	159.3	96.3	3.7	170	18.5	99.4	0.6	181	19.7	97.2	2.8
Samegrelo and Zemo Svaneti	22	27.2	63.6	36.4	16	3.7	81.3	18.8	17	3.9	76.5	23.5
Shida Kartli	36	67.9	75.0	25.0	27	8.0	92.6	7.4	31	9.1	83.9	16.1
Kvemo Kartli	41	48.0	41.5	58.5	20	4.1	85.0	15.0	38	7.7	44.7	55.3
Guria	3	12.6	66.7	33.3	2	1.8	100.0	0	2	1.8	100.0	0
Samtskhe – Javakheti	18	50.0	61.1	38.9	14	6.4	78.6	21.4	18	8.2	61.1	38.9
Mtskheta – Mtianeti	1	5.4	0	100	1	2.3	0	100.0	1	2.3	0	100.0
Racha – Lechkhumi and Kvemo Svaneti	1	12.3	0	100	1	13.3	0	100.0	1	13.3	0	100.0
Georgia	894	118.2	90.4	9.6	741	12.0	96.6	3.4	830	13.4	92.2	7.8

* *Encounters to out-patient facilities due to reproductive health problems, excluding antenatal care visits*

Table 5.16 Incidence of diseases in children under 1 and under 5, Georgia, 2010

	Children under 1		Children under 5	
	Total Number of new cases	Incidence rate per 1000 infants	Total Number of new cases	Incidence rate per 1000 children < 5
All diseases	**68540**	**110192.9**	**226395**	**84665.3**
	Including			
Certain infectious and parasitic diseases	4419	7104.5	24137	9026.6
Neoplasms	21	33.8	45	16.8
Diseases of the blood and blood-forming organs	2621	4213.8	7305	2731.9
Endocrine, nutritional and metabolic diseases	2563	4120.6	4365	1632.4
Mental and behavioural disorders	15	24.1	73	27.3
Diseases of the nervous system	4577	7358.5	7501	2805.2
Diseases of the eye and adnexa	2338	3758.8	5948	2224.4
Diseases of the ear and mastoid process	2225	3577.2	6346	2373.2
Diseases of the circulatory system	138	221.9	464	173.5
Diseases of the respiratory system	40763	65535.4	146671	54850.8
Diseases of the digestive system	2079	3342.4	6301	2356.4
Diseases of the skin and subcutaneous tissue	2037	3274.9	6046	2261.0
Diseases of the musculoskeletal system and connective tissue	212	340.8	847	316.8
Diseases of the genitourinary system	1210	1945.3	3474	1299.2
Certain conditions originating in the perinatal period	1401	2252.4	1401	523.9
Congenital malformations, deformations and chromosomal abnormalities	813	1307.1	1377	515.0
Symptoms, signs and abnormal clinical and laboratory findings	741	1191.3	2140	800.3
Injuries, poisoning and other certain consequences of external causes	367	590.0	1954	730.7

Table 5.17 In-patient surgical operations on female genital organs and obstetrical-gynecological operations, Georgia, 2009 – 2010

	2009		2010	
	Total number	Case fatality rate (%)	Total number	Case fatality rate (%)
Total number of operations on the female genital organs	**9722**	**0.08**	**9861**	**0.03**
Including				
Endometrectomy (excluding abortions)	2395	0	2186	0
Female sterilization	192	0	314	0
Amputation of uterus	1235	0.08	1337	0.15
Extirpation of uterus	3570	0.20	3606	0.03
Resection of ovary	851	0	939	0
Ovarectomy	657	0	437	0
Operations on external genital organs with tissue extirpation	177	0	190	0
Obstetrical and gynecological surgery	**35535**	**0.01**	**38262**	**0**
Including				
Due to ectopic pregnancy	1219	0.1	1082	0
Forceps	81	0	73	0
Vacuum extraction	149	0	186	0
Cesarean section	17722	0.02	19442	0
Operations of fetal destruction	40	0	34	0
Abortion	16192	0	16220	0

CHAPTER 6 Major Health Determinants

Evidence about ill health because of risk factors has accumulated from many studies done in different parts of the world. To prevent and control the 4 noncommunicable diseases — cardiovascular diseases, diabetes, cancers and chronic respiratory diseases, the 4 shared risk factors — tobacco use, including second-hand smoking, physical inactivity, unhealthy diets and the harmful use of alcohol must be controlled.

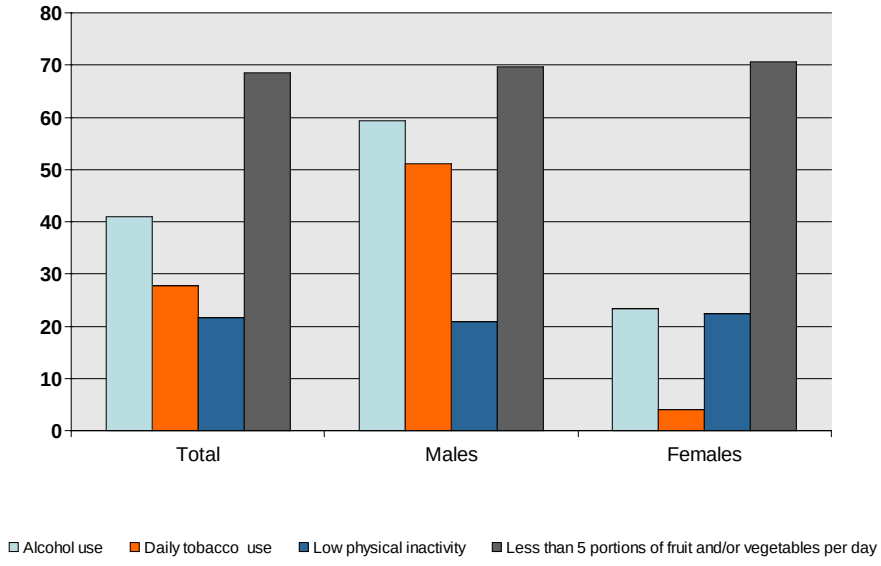
WHO Action Plan for the Global Strategy for the Prevention and Control of Non-communicable Diseases
Oberg M, et al. Worldwide burden of disease from exposure to second-hand smoke

Statistical data on behavioral risk-factors in Georgia are available only from studies, conducted in Georgia with the support of various international and non-governmental organizations, such as:

- 2004 – Health Behavior Survey - (CINDI);
- 2006 – 2007 - Non—communicable diseases risk-factors survey in Georgia;
- 2009 – Georgia National Nutrition Survey (GNNS-2009);
- 2009 –School Survey Project on Alcohol and Other Drugs, Georgia (ESPAD);
- 2010 - Chronic disease risk factor surveillance (STEPS2010);
- 2000, 2005, 2010 - Reproductive Health Survey (GERHS).

Chronic non-communicable diseases risk-factors survey in Georgia (STEPS2010) covered a representative sample of 18 - 64 years old population. Total of 6,497 adult population participated in the study. Three stages of STEPS were conducted in Georgia. Information concerning socio-demographic and behavioral factors was obtained during the Step 1; physical measurements such as height, weight and systolic and diastolic blood pressure - during the step 2; biochemical indicators (fasting glucose levels, total cholesterol and triglycerides) - during the stage 3. According to the results, only 4.5% of respondents are not exposed to risk-factors for non-communicable diseases, 40% are exposed to three or more of the risk-factors (See Figure 6.1).

Figure 6.1 Behavioral risk-factors, %, Georgia STEPS 2010



Tobacco use

The tobacco epidemic is one of the biggest public health threats the world has ever faced. It kills nearly six million people a year of whom more than 5 million are users and ex users and more than 600 000 are nonsmokers exposed to second-hand smoke. Approximately one person dies every six seconds due to tobacco and this accounts for one in 10 adult deaths. Up to half of current users will eventually die of a tobacco-related disease.

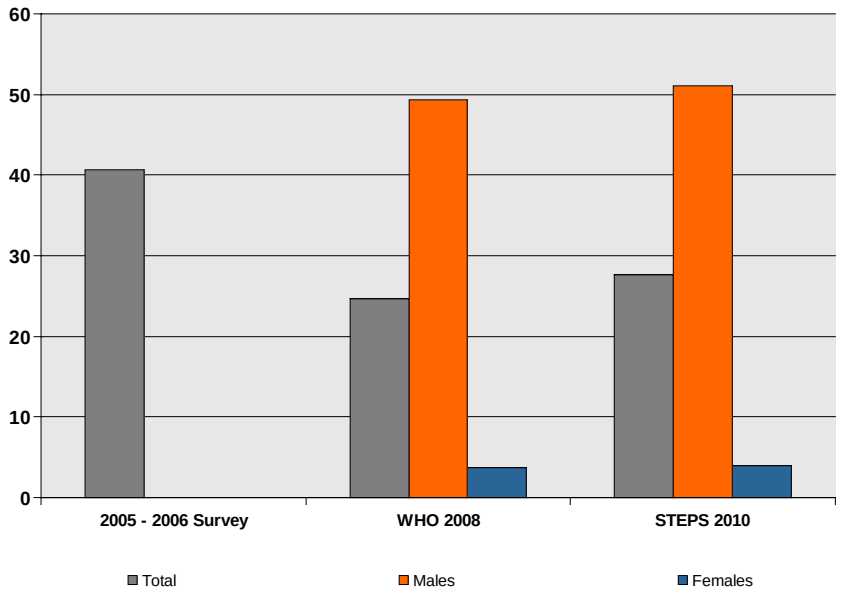
Tobacco smoking causes many types of cancer, including cancers of the lung, esophagus, larynx (voice box), mouth, throat, kidney, bladder, pancreas, stomach and cervix. About 70% of the lung cancer burden and 22% of general cancer mortality can be attributed to smoking alone. Second-hand smoke (SHS), also known as environmental tobacco smoke, has been proven to cause lung cancer in nonsmoking adults.

WHO Tobacco Free Initiative

According to data of different surveys, the share of tobacco smokers in Georgian population varies between 30.3% and 42.2%. According to the results of ESPAD study 12% of adolescents are regular smokers.

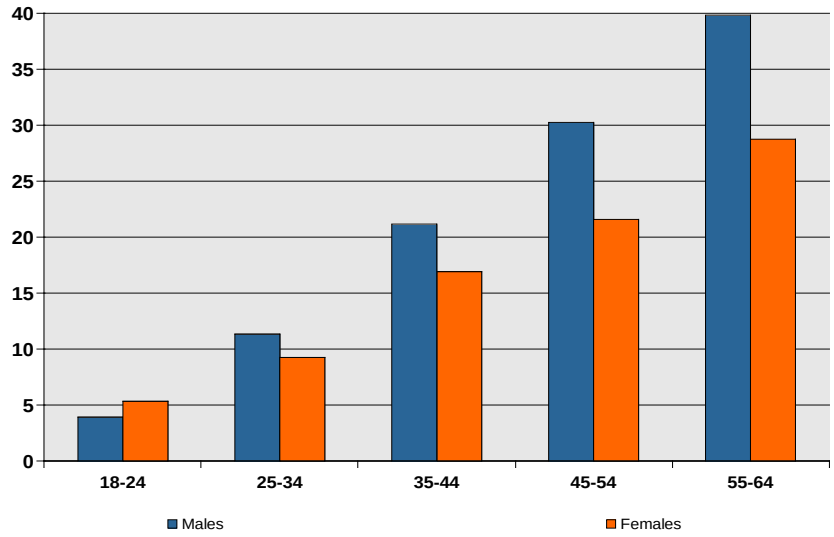
In 2008, according to the WHO estimates, daily tobacco consumption in men was about 13.5 times higher than in women. Each study conducted in Georgia reports approximately the same correlation, for example, according to the STEPS2010 data, this proportion is 11.7. The STEPS2010 also revealed that the prevalence of smoking in the total population was 30.3%, in males prevalence was 55.5%, in females – 4.8%. The highest rate of smoking (36.5%) was reported in Tbilisi. The proportion of population exposed to second-hand smoking is considerably high: in the total population - 23.3%; in males - 32.9%, and in females - 13.7% (See Figure 6.2).

Figure 6.2 **Daily tobacco smoking prevalence (%), Georgia**



The highest prevalence (36%) of daily tobacco use has been revealed in the population aged 25-34 years.

Figure 6.3 **Smoking duration in years, according to age groups, STEPS**

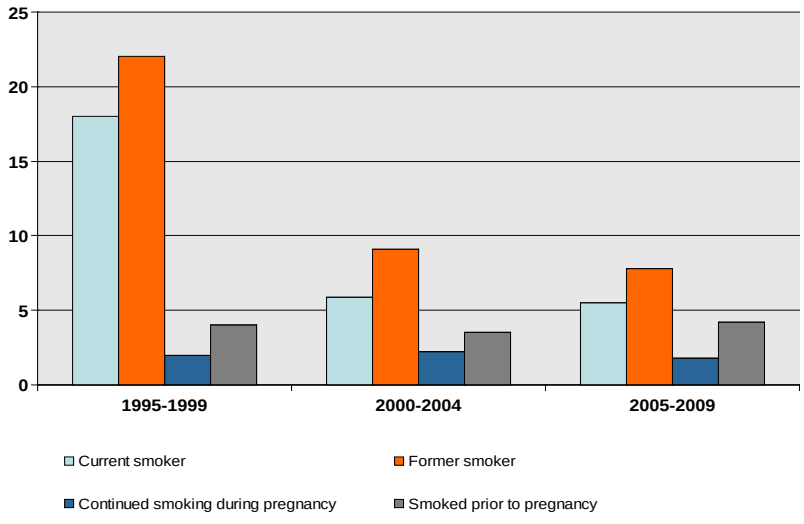


Prenatal smoking remains one of the most common preventable causes of infant morbidity and mortality and is associated with 30% of small-for-gestational-age infants, 10% of preterm infants, and 5% of infant deaths. Maternal cigarette smoking during pregnancy increases the risk for pregnancy complications (e.g., placental previa, placental abruption, and premature rupture of the membrane) and poor pregnancy outcomes (e.g., preterm delivery, restricted fetal growth, and sudden infant death syndrome [SIDS])

CDC – Women and Smoking

The data on the smoking during pregnancy has been obtained through the Reproductive Health Surveys (See Figure 6.4).

Figure 6.4 **Lifetime, current and past smoking prevalence by age groups among the women aged 15-44, Georgia, GERHS**



Since 1999, according to the studies, tobacco use has shown a three-fold decline among women of reproductive age, although, the proportion of women, smoking during pregnancy, has shown no change and accounts for 2% of pregnant women. According to the data, currently 13% of women living in the capital of Georgia - Tbilisi are smokers, 9% - of women living in other towns and 2% - of women living in the rural areas.

Alcohol consumption

Approximately 4.5% of the global burden of disease and injury is attributable to alcohol. Alcohol consumption is estimated to cause from 20% to 50% of cirrhosis of the liver, epilepsy, poisonings, road traffic c accidents, violence and several types of cancer. It is the third highest risk for disease and disability, after childhood underweight and unsafe sex.

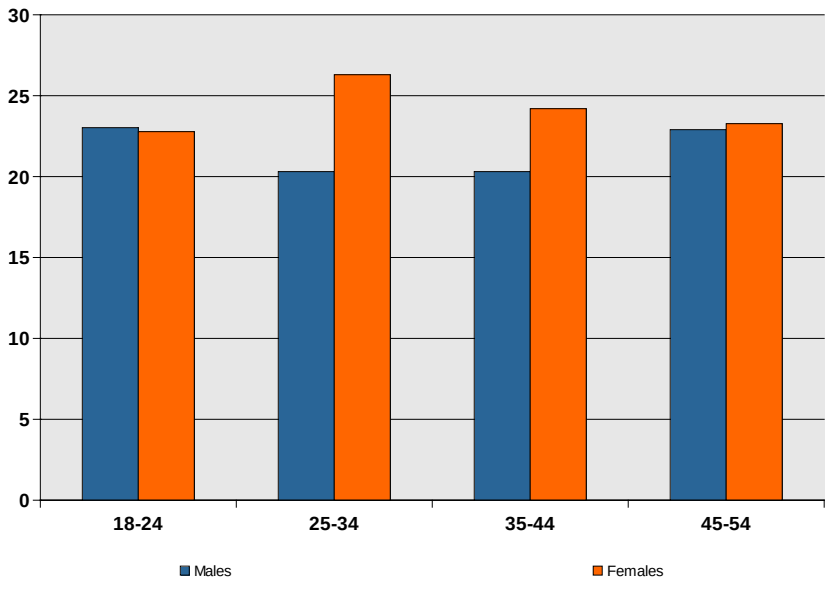
The harmful use of alcohol is one of the world's leading health risks. It is a causal factor in more than 60 major types of diseases and injuries and results in approximately 2.5 million deaths each year. Thus, 4% of all deaths worldwide are attributable to alcohol. The harmful use of alcohol is especially fatal for younger age groups and alcohol is the world's leading risk factor for death among males aged 15–59.

WHO Alcohol Key Facts

According to the 2003 data of the WHO[*], 31.7% of Georgian population never drank alcohol (10.4% of males; 49.6% of females); 19.4% were former drinkers (18.3% of males; 20.3% of females), 51.1% abstained from alcohol during last 12 months (28.7% of males; 69.9% of females). The ratio of female to male alcohol drinkers is 1:3, for example, in the Great Britain this ratio is 1:2.8, although, according to other studies, this indicator varies around 1:1.2[**].

Annual pure alcohol consumption per capita in young population of Georgia is about 6.4 liters. This is approximately a half of the consumption in Europe[***]. According to the STEPS2010 results, 41% of respondents are current drinkers (59.4% of males and 23.4% of females). During 12 months prior to the survey the prevalence of alcohol drinking was 22.5%. The difference between age and sex groups is not particularly pronounced, although, this indicator is higher in women (See Figure 6.5).

Figure 6.5 **Prevalence of alcohol consumption (%) during 12 months prior to the survey, Georgia, STEPS2010**

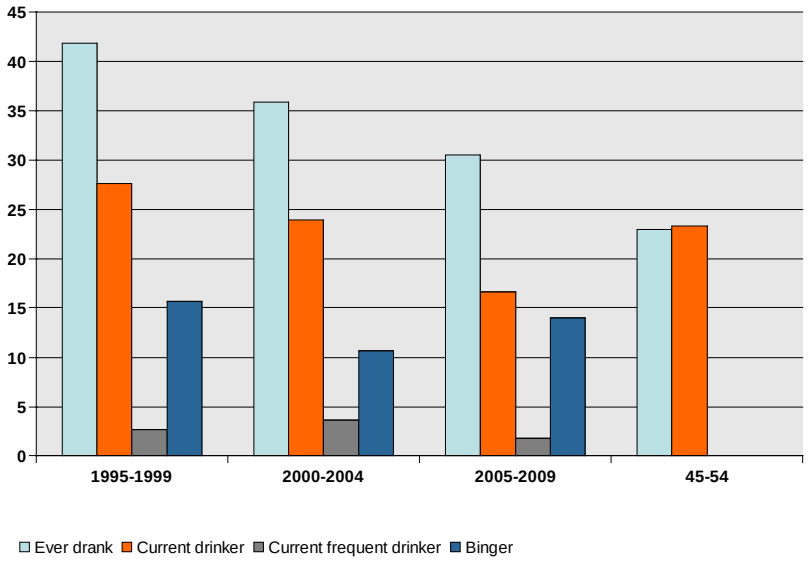


[*] *Report on Alcohol and Health 2010, WHO*
[**] *The General Household Survey (GHS) conducted in 1998 (Bridgwood et al., 2000)*
[***] *Global status report on alcohol and health, WHO 2011*

According to the ESPAD study, 90% of the studied population aged 15-16 tried alcohol at least once in their life; 20% abstained from drinking alcohol during 12 months prior to the survey, and 60% did so during 30 days prior to the interview.

According to Women's Reproductive Health survey, 69.5% of women abstained from alcohol consumption during 3 months prior to the survey. The indicator improved, compared to the previous surveys (64.2% - in 2005; 58.2% - in 1999). 1% of respondents reported drinking during pregnancy; this is one third of the number reported in 1999 (See Figure 6.6).

Figure 6.6 **Current drinking prevalence rates by age groups among women aged 15 – 44 years, Georgia, GERHS**



Drug abuse

"Collating the data yielded an estimate of the number of IDU (injecting drug user) worldwide as 13.2 million (0.3% of the estimated 4 billion adult population) by the end of 2003. The majority, 10.3 million (78%), live in developing and transitional countries. We estimate the number of IDU for Western Europe at from 1 to 1.4 million (9.41%) and for Eastern Europe and Central Asia from 2.3 to 4.1 million (24.18%)"[*].

According to the data of "United Nations Reference Group on HIV/AIDS Prevention and Care among IDU", prevalence of injecting drug use is 4.19, ranging between 0.48 and 7.90. By the year 2008, according to the data obtained by this reference group, the number of injecting drug users in the age group of 15-64 was 140 000 (123 500 – 233 000)[**].

In 2009, the results of the study conducted within the framework of South Caucasus Anti-Drug Program by the Public Union "Bemoni", revealed approximately 40 000 injecting drug users in Georgia (prevalence in the adult population – 1.1%) (See Figure 6.7).

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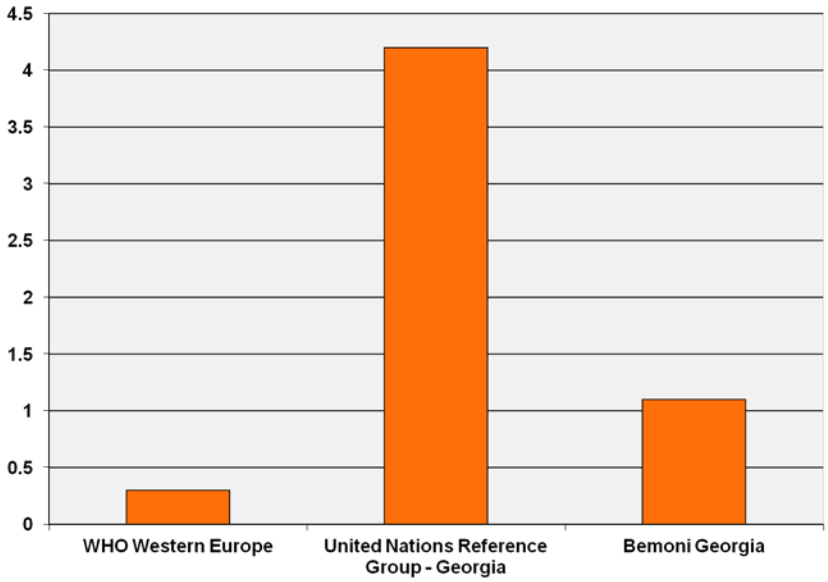
[*] *Global overview of injecting drug use and HIV infection among injecting drug users. Carmen Aceijas, Gerry V. Stimson, Matthew Hickman and Tim Rhodes, on behalf of the United Nations Reference Group on HIV/AIDS Prevention and Care among IDU in Developing and Transitional Countries*

[**] *IDU http://www.idurefgroup.org/country-data-and-maps/Georgia_- injection drug use reference group*

Figure 6.7 Estimated prevalence of injecting drug users



ESPAD - School Survey Project on Alcohol and Other Drugs conducted among high-school children in Georgia, revealed that shares of respondents who tried narcotics at least once during lifetime are as follows: marijuana-cannabis – 17%, ecstasy – 7,5%, amphetamines - 2%, "crack"- cocaine - 1,1%, heroin 1%, cocaine powder – 0,6%. Only few respondents admitted using of anabolic steroids and injecting drugs at least once in their lives. The prevalence rate of using illicit drugs stood at 20%, including 33% in boys and 8% in girls.

Physical activity

> Physical inactivity is the fourth leading risk factor for global mortality (6% of deaths globally) accounting for 3.4 million deaths annually.
> Regular and adequate levels of physical activity considerably reduces the risk of cardiovascular diseases, diabetes, breast and colon cancers, bone fractures and depression and helps maintain energy balance and weight control.
>
> *WHO 10 facts on physical activity*

According to the 2008 data* of the World Health Organization, the rate of physical inactivity in Georgia stands at 22.9%. It is higher among females (24.2%), compared to males (21.3%).

Studies conducted during the last years revealed that the general physical inactivity rate varied between 89.3% and 93.9%. The indicator was considerably higher in females (94.2% - 96.7%) than in males (84.6% - 91.0%). The share of respondents who sat more than 6 hours per day reached 43.5% (49.1% in males and 38.2% in females). Annually, 85.6% of respondents exercised only few times or even less.

According to the STEPS2010 results, physical inactivity rate for both sexes stands at 21.6%, average physical activity rate – 18.8% and high physical activity rate – 59.6%. The highest rate of moderate-intensity physical activity for both sexes (20.7%) was reported in the age group of 18-24 years. There was revealed a

* *The European health report 2009, Health and health systems*

considerable decrease of the rate of physical activity with increasing the respondents' age.

Nutrition

> Malnutrition, in every form, presents significant threats to human health. Today the world faces a double burden of malnutrition that includes both undernutrition and overweight, especially in developing countries.
>
> Hunger and inadequate nutrition contribute to early deaths for mothers, infants and young children, and impaired physical and brain development in the young.*10% of* child *and* maternal morbidity and 1/3 of the infant mortality are due to malnutrition. At the same time, growing rates of overweight and obesity worldwide are linked to a rise in chronic diseases such as cancer, cardiovascular disease and diabetes - conditions that are life-threatening and very difficult to treat in places with limited resources and already overburdened health systems. About 43 million children under age 5 were overweight in 2010
>
> *WHO 10 facts on nutrition*

In Georgia, obesity is a real problem. 2005 MICS survey showed that 15.2% of children under the age of 5 years are overweight.

According to the studies conducted in 2006-2007, fruit and vegetables consumption is low in Georgia: 37.5% of respondents never ate fruit, and 10% of respondents had not eaten any vegetables during a week before the interview.

The GNNS-2009 study showed that excessive weight and obesity are on the top of the list of nutrition-related problems in Georgia. The mentioned above indicator in children under 5 years is 19.9%; 24.1% of non-pregnant women are overweight and 18% are obese.

According to the STEPS2010, the majority of the population interviewed (60.1%) in average had three meals per day, 28.8% ate twice per day, and 3.6% - only once per day. The consumption of bakery products accounted to 38% of all products, fruit and vegetables – 30%, diary products – 16%, and sweets – 13%; meat products consumption accounted to only 2% and fish to 1% of all products.

The STEPS2010 showed that 56% of Georgian population is overweight (58.6% male and 54.2% female) and 25.1% is obese (21.8% male and 28.5% female).

Table 6.1 Trends in risk-factors based on the data of interview results, population within the age group of 18 - 64, Georgia, 2010

Indicators	Both sexes	Males	Females
Tobacco use			
Percentage who currently smoke tobacco	**30.3%** (28.4-32.2)	**55.5%** (52.7-58.4)	**4.8%** (3.7-5.8)
Percentage who currently smoke tobacco daily	**27.7%** (25.8-29.5)	**51.1%** (48.1-54.0)	**4.0%** (2.9-5.0)
For those who smoke tobacco daily			
Average age started smoking (years)	**18.6** (18.3-19.0)	**18.3** (18.0-18.6)	**23.2** (21.7-24.7)
Percentage of daily smokers smoking manufactured cigarettes	**98.8%** (97.8-99.9)	**98.8%** (97.7-99.9)	**100.0%** (100.0-100.0)
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	**19.5** (18.7-20.4)	**20.0** (19.0-20.9)	**14.0** (12.8-15.3)
Alcohol consumption			
Percentage who are lifetime abstainers	**21.5%** (18.9-24.2)	**9.6%** (7.2-11.9)	**33.7%** (29.6-37.7)
Percentage who are past 12 month abstainers	**14.5%** (13.0-15.9)	**9.7%** (7.8-11.5)	**19.3%** (17.4-21.2)
Percentage who currently drink (drank alcohol in the past 30 days)	**41.5%** (38.6-44.5)	**59.4%** (55.5-63.4)	**23.4%** (20.6-26.2)
Percentage who engage in heavy episodic drinking (men who had 5 or more / women who had 4 or more drinks on any day in the past 30 days)	**--**	**49.8%** (45.7-53.9)	**10.3%** (8.5-12.0)
Fruit and vegetables consumption (per week)			
Mean number of days fruit consumed	**4.9** (4.8-5.1)	**4.7** (4.5-4.9)	**5.2** (5.1-5.3)
Mean number of servings of fruit consumed on average per day	**1.8** (1.7-1.9)	**1.7** (1.6-1.8)	**1.9** (1.8-2.0)
Mean number of days vegetables consumed	**5.8** (5.7-5.9)	**5.8** (5.6-5.9)	**5.9** (5.8-6.0)
Mean number of servings of vegetables consumed on average per day	**2.2** (2.1-2.3)	**2.2** (2.1-2.4)	**2.1** (2.0-2.2)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	**69.6%** (66.7-72.6)	**70.7%** (66.8-74.6)	**68.6%** (65.6-71.5)
Physical activity			
Percentage with low levels of activity (defined as < 600 MET-minutes per week)*	**21.6%** (19.3-23.8)	**20.9%** (17.8-23.9)	**22.3%** (19.8-24.9)
Percentage with high levels of activity (defined as ≥ 3000 MET-minutes per week)*	**59.6%** (56.9-62.3)	**63.2%** (59.5-66.9)	**56.0%** (53.1-59.0)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	**154.3** (42.9-310.0)	**180.0** (60.0-353.6)	**130.0** (34.3-292.9)
Percentage not engaging in vigorous activity	**78.6%** (76.1-81.1)	**68.7%** (64.7-72.7)	**88.6%** (86.5-90.8)

Table 6.2 Trends in risk-factors, physical measurements, population within the age group of 18 - 64, Georgia, 2010

Indicators	Both sexes	Males	Females
Physical Measurements			
Mean body mass index - BMI (kg/m^2)	**26.7** (26.5-27.0)	**26.6** (26.3-26.9)	**26.8** (26.5-27.1)
Percentage who are overweight (BMI ≥ 25 kg/m^2)	**56.4%** (54.3-58.5)	**58.6%** (55.5-61.7)	**54.2%** (52.0-56.4)
Percentage who are obese (BMI ≥ 30 kg/m^2)	**25.1%** (23.3-26.8)	**21.8%** (19.3-24.3)	**28.5%** (26.6-30.3)
Average waist circumference (cm)	--	**90.9** (89.9-92.0)	**84.7** (83.8-85.6)
Mean systolic blood pressure - SBP (mmHg), including those currently on medication for raised BP	**129.3** (128.4-130.3)	**133.0** (131.7-134.3)	**125.7** (124.7-126.7)
Mean diastolic blood pressure - DBP (mmHg) , including those currently on medication for raised BP	**81.3** (80.7-81.9)	**83.0** (82.2-83.9)	**79.6** (79.0-80.2)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	**33.4%** (31.4-35.5)	**37.1%** (34.0-40.3)	**29.8%** (27.9-31.8)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg) who are not currently on medication for raised BP	**61.1%** (57.6-64.6)	**73.2%** (68.8-77.5)	**46.4%** (42.9-49.9)
Biochemical Measurement			
Mean fasting blood glucose, including those currently on medication for raised blood glucose [choose accordingly: mmol/L or mg/dl]	**101.2** (100.1-102.2)	**104.1** (102.5-105.8)	**98.1** (97.1-99.2)
Percentage with impaired fasting glycaemia as defined below • plasma venous value ≥6.1 mmol/L (110 mg/dl) and <7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥5.6 mmol/L (100 mg/dl) and <6.1 mmol/L (110 mg/dl)	**20.9%** (19.2-22.5)	**23.1%** (20.4-25.9)	**18.6%** (17.0-20.2)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	**16.3%** (14.8-17.9)	**19.7%** (17.3-22.1)	**13.0%** (11.5-14.4)
Mean total blood cholesterol, including those currently on medication for raised cholesterol [choose accordingly: mmol/L or mg/dl]	**172.9** (171.5-174.4)	**169.6** (167.6-171.5)	**175.8** (174.3-177.4)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	**18.1%** (15.9-20.2)	**14.9%** (12.1-17.7)	**20.9%** (18.5-23.3)
Summary of combined risk factors • current daily smokers • less than 5 servings of fruits & vegetables per day • low level of activity • overweight (BMI ≥ 25 kg/m^2) • raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)			
Percentage with none of the above risk factors	**6.4%** (5.3-7.5)	**3.7%** (2.4-5.0)	**9.2%** (7.6-10.8)
Percentage with three or more of the above risk factors, aged 25 to 44 years	**27.0%** (24.3-29.8)	**39.4%** (35.3-43.6)	**13.5%** (11.5-15.5)
Percentage with three or more of the above risk factors, aged 45 to 64 years	**49.7%** (47.0-52.5)	**57.6%** (53.2-62.1)	**42.8%** (39.9-45.7)
Percentage with three or more of the above risk factors, aged 25 to 64 years	**35.2%** (33.0-37.4)	**45.5%** (42.2-48.8)	**24.8%** (22.7-26.8)

Glossary

1. **Statistics** – the social science directed toward obtaining, processing, and analyzing information that describes the quantitative patterns in the multiform life of a society.
2. **Statistical Data** (– the results of measurements, surveys, experiments, analysis.
3. **Statistical Data Sources** – state management agencies (e.g., Ministry of Health, received data from the health facilities); censuses data, surveys data, etc.
4. **Population** - the set of individuals from which a statistical sample is taken (the total number of inhabitants constituting country population, region population, particular ethnic, social, or age group).
5. **Population size** – is equal to the algebraic sum of the basic size of the population by the last census, natural increase, and net migration during the passed period.
6. **Mid-year population** - the arithmetic mean of the population at the beginning and at the end of a year.
7. **Age standardization** – a method of adjusting the crude rate to eliminate the effect of differences in population age structures when comparing crude rates for different periods of time, different geographic areas and/or different population sub-groups (e.g. between one year and the next and/or states and territories, indigenous and non-indigenous populations). Adjustments are usually undertaken for each of the comparison populations against a standard population (rather than adjusting one comparison population to resemble another).

European Standard population

Age (years)	%	Age (years)	%
0	1.6	45-49	7
1-4	6.4	50-54	7
5-9	7	55-59	6
10-14	7	60-64	5
15-19	7	65-69	4
20-24	7	70-74	3
25-29	7	75-79	2
30-34	7	80-84	1
35-39	7	85+	1
40-44	7	all ages	100

8. **Medical statistics** - the application of statistical knowledge and methods to the field of medicine and health.
9. **Health** - a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity. Health is the extent to which an individual or group is able, on the one hand, to realize aspirations and satisfy needs and, on the other hand, to cope with the interpersonal, social, biological, and physical environments. Health is therefore a resource for everyday life, not the objective of living; it is a positive concept embracing social and personal resources as well as physical and psychological capacities. Population health is not merely the sum of the health of individuals; it also entails consideration of the nature of the distribution of health throughout the population.
10. **Health status** – is a concept that gives medical assessment of population health on aggregated specific indicators, such as encounter for health services, disease, need for medical examination, etc. Health status may be measured by an observer, who performs an examination and rates the individual along any of several dimensions, including presence or absence of life-threatening illness, risk factors for premature death, severity of disease, and overall health. Individual health status may also be assessed by the person's physical functioning, emotional well-being, pain or discomfort, and overall perception of health.

    Depending on the health status individuals are divided into 3 groups:

    Group I - healthy individuals, they did not present any complaints, not have a history of chronic diseases, none functional disorders have been found during medical examinations;

    Group II - practically healthy persons with a history of acute and chronic disease that does not affect the functions of vital organs and does not affect the ability to work;

    Group III - patients with chronic diseases requiring systematic medical supervision:

- with compensated;
- with sub-compensated;
- with de-compensated course of disease.

11. **Primary health care** – a basic level of health care that includes programs directed at the promotion of health, early diagnosis of disease or disability, and prevention of disease. Primary health care is provided in an ambulatory facility to limited numbers of people, often those living in a particular geographic area. It includes continuing health care, as provided by a family practitioner. In Georgia, since 2006, primary health care is defined as a non-hospital health care, it means that all services provided in out-patient clinics.
12. **Primary health care facilities** – all out-patient facilities (out-patient departments co-social with hospitals, policlinics, ambulatories, health centers, doctor health posts, etc.), with at least one health professional (doctor, nurse). Dental clinics (cabinets) provide only the dental care not included. Indicator of PCH facilities per 100000 population:

$$\frac{\text{Total number of PCH facilities} * 100000}{\text{Midyear population}}$$

13. **Morbidity** – an incidence of ill health in some period of time; departure from a state of physical or psychological well-being, resulting from disease, illness, injury, or sickness account for the contact with health services.
14. **Encounter** – a face-to-face transaction between a health worker and a patient or client for the physical examination, diagnostics, consultation, and treatment purposes. Places and types for encounters are: physician's cabinets (offices), ambulatories, policlinics, hospital admission departments (emergency departments), houses/flats (any places where a face-to-face transaction occurs), clinics, and any health facilities except hospitals. Total number of encounters per one person per year:

$$\frac{\text{Total number of encounters per year} * 100000}{\text{Midyear population}}$$

15. **First encounter** – patient's first visit to a doctor.
16. **Recurrent encounter** - visit to a doctor for continued treatment of the acute cases or the chronic (previously identified and registered) cases.
17. **Case detection** – diagnostic and registration of a disease.
18. **Incidence** – the number of newly diagnosed cases (all acute cases of disease, the first registration of the chronic diseases) during a specific time period.

$$\frac{\text{Total number of new cases of the diseases} * 100000}{\text{Midyear population}}$$

19. **Prevalence** – the total number of all new and old cases of a disease or occurrences of an event registered during a particular year.

$$\frac{\text{Total number of all registered cases of the diseases} * 100000}{\text{Midyear population}}$$

20. **Prevalence by the end of the year**

$$\frac{\text{Total number of all cases of the diseases by the end of the year} * 100000}{\text{Midyear population}}$$

21. **Hospital** – residential establishment equipped with in-patient facilities for 24-hour care, providing medical, surgical, etc. testing, treatment, and rehabilitation, staffed with professionally trained health care personnel (at least one doctor). Total number of hospitals includes general type, specialized, emergency, and long-stay hospitals and not includes balneal facilities, sanatoriums, welfare homes for physically and mentally disabled, retirement homes, day care facilities.
    Indicator for total number of hospitals per 100000 population:

$$\frac{\text{Total number of the in-patient clinics} * 100000}{\text{Midyear population}}$$

22. **Hospital bed** – one bed in a 24-hour section for treatment of a patient (in-patient bed). The number of hospital beds indicates hospital capacity and power. The number of hospital beds not includes

beds for newborns and diurnal beds. Indicator for total number of hospital beds per 100000 population:

$$\frac{\text{Total number of hospital beds} * 100000}{\text{Midyear population}}$$

23. **Hospital morbidity** – refers to the number of hospitalizations.
24. **Hospitalization level**

$$\frac{\text{Total number of hospital discharges, live and dead} * 100000}{\text{Midyear population}}$$

25. **Average length of stay**

$$\frac{\text{Total number of bed / days spent by patients in a hospital}}{\text{Total number of all hospital discharges in the given hospital}}$$

26. **Hospital bed rotation rate**

$$\frac{\text{Total number of hospital discharges}}{\text{Total number of hospital beds}}$$

27. **Bed occupancy rate**

$$\frac{\text{Total number of bed / days spent by patients in a hospital}}{\text{Total number of hospital beds}}$$

28. **Hospital case fatality rate**

$$\frac{\text{Total number of deaths in the hospital} * 100}{\text{Total number of discharges from the given hospital}}$$

29. **Gestational age** - the duration of gestation is measured from the first day of the last normal menstrual period. Gestational age is expressed in completed days or completed weeks (events occurring 280 to 286 completed days after the onset of the last normal menstrual period are considered to have occurred at 40 weeks of gestation). Gestational age is frequently a source of confusion, when calculations are based on menstrual dates. For the purposes of calculation of gestational age from the date of the first day of the last normal menstrual period and the date of delivery, it should be borne in mind that the first day is day zero and not day one; days 0-6 therefore correspond to "completed week zero"; days 7-13 to "completed week one"; and the 40th week of actual gestation is synonymous with "completed week 39". Where the date of the last normal menstrual period is not available, gestational age should be based on the best clinical estimate. In order to avoid misunderstanding, tabulations should indicate both weeks and days.

    Pre-term

    Less than 37 completed weeks (less than 259 days) of gestation.

    Term

    From 37 completed weeks to less than 42 completed weeks (259 to 293 days) of gestation.

    Post-term

    42 completed weeks or more (294 days or more) of gestation.

30. **Live birth** - the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered liveborn.
31. **Birth weight** - the first weight of the fetus or newborn obtained after birth. For live births, birth weight should preferably be measured within the first hour of life before significant postnatal weight loss has occurred. While statistical tabulations include 500 g groupings for birth weight, weights should not be recorded in those groupings. The actual weight should be recorded to the degree of accuracy to which it is measured. The definitions of "low", "very low", and "extremely low" birth weight do not constitute mutually exclusive categories. Below the set limits they are all-inclusive and therefore overlap (i.e. "low" includes "very low" and "extremely low", while "very low" includes "extremely low").

    Low birth weight

    Less than 2500 g (up to and including 2499 g).

Very low birth weight
Less than 1500 g (up to and including 1499 g).
Extremely low birth weight
Less than 1000 g (up to and including 999 g).

32. **Crude birth rate** – the number of live births occurring in a stated population during the stated period of time, usually a year, per 1000 population of the same period of time.

$$\frac{\text{Total number of live births} * 1000}{\text{Midyear population}}$$

33. **Age-specific birth rate –** the number of live births to women of the particular age group during the stated period of time, usually a year, per 1000 women of the same age group.

$$\frac{\text{Total number of live births to women of x age group} * 1000}{\text{Total number of women of the same age group}}$$

34. **Total fertility rate** – the expected average number of children that would be born to a woman in her lifetime if she were to pass through her childbearing years (usually for ages 15–49) experiencing the age-specific fertility rates prevailing in a given year/period. It is obtained by summing the single-year age-specific rates at a given time to be divided by 1000. In the case of data give in five-year age groups total fertility rate is the sum of the age-specific birth rates multiplied by 5 and divided by 1000. Total fertility rate is the sufficiently precise index.

$$\frac{\text{The sum of the single-year age-specific rates}}{1000}$$

35. **Gross reproduction rate** – the average number of daughters that would be born to a woman if she survived to the end of her reproductive years and conformed to the age-specific fertility rate of a given year, this rate provides a measure of the replacement fertility of a population in the absence of mortality. Gross reproduction rate are based on female fertility. It is also possible, but by no means the standard practice, to calculate analogous rates for the male population. Gross reproduction rate not takes into account the fact that some women will die before entering and completing their child-bearing years, so it is not a realistic assessment of the reproductive potential of a population.

(Proportion of female livebirths) * (Total fertility rate)

36. **Net reproduction rate** – the average number of daughters that would be born to a female if she passed through her lifetime conforming to the age-specific fertility and mortality rates of a given year. This index means that each generation of mothers is having exactly enough daughters to replace themselves in the population. Net reproduction rates are based on female fertility and mortality. It is also possible, but by no means the standard practice, to calculate analogous rates for the male population.

(Proportion of female livebirths) * (Total fertility rate) * (Total number of surviving women)

37. **Numerical secondary ratio of sexes –** the ratio of males to females in a population at time of birth, is commonly assumed to be 105 boys to 100 girls. A range of sex ratios at birth of between 103 to 107 boys per 100 girls has been observed in different societies, and among different ethnic and racial groups within a given society.
38. **Death –** a permanent cessation of all vital functions (the irreversible cessation of organism functioning) at any moment of life (from the birth).
39. **Cause of death** - all those diseases, morbid conditions or injuries which either resulted in or contributed to death and the circumstances of the accident or violence which produced any such injuries. The purpose of the definition is to ensure that all the relevant information is recorded and that the certifier does not select some conditions for entry and reject others. The definition does not include symptoms and modes of dying, such as heart failure or respiratory failure.
40. **Underlying cause of death** - the underlying cause has been defined as a) the disease or injury which initiated the train of morbid events leading directly to death, or (b) the circumstances of the accident or violence which produced the fatal injury.
41. **Crude death rate** - the total number of deaths to residents in a specified geographic area (country, state, county, etc.) divided by the total population for the same geographic area (for a specified time period, usually a calendar year) and multiplied by 1000.

$$\text{Total number of deaths} * 1000$$

Midyear population

42. **Death rate by cause of death** – calculated for specific causes of death. Consistent cause-of-death data is needed to monitor national trends in deaths, evaluate prevention programs, and conduct research that will ultimately lead to a reduction in these deaths.

$$\frac{\text{Total number of deaths of the specific cause of death} * 100000}{\text{Midyear population}}$$

43. **Age-specific death rate** – refers to the total number of deaths per 1000 people of a specific age group (one-year, five-year, etc. age groups are used) in a given time period (usually one/two years).

$$\frac{\text{Total number of deaths of a specific age group} * 1000}{\text{Total number of people of the same age group}}$$

44. **Infant mortality rate** – the number of children dying under a year of age in a given year per 1000 live births in the same year. Infant mortality rate is the probability of a child born in a specific year or period dying before reaching the age of one, if subject to age-specific mortality rates of that period. Infant mortality rate is a leading indicator of the level of child health and overall development in countries. It is also MDG indicator. The total number of live births is often used as the denominator to calculate the infant mortality rate.

$$\frac{\text{Total number of infant deaths} * 1000}{\text{Total number of live births}}$$

45. **Mortality under age 5** – refers to the death of infants and children under the age of five, is the number of children who die by the age of five, during the stated period of time, usually a year, per thousand live births of the same period of time. Under-five mortality rate is the probability of a child born in a specific year or period dying before reaching the age of five, if subject to age-specific mortality rates of that period.

$$\frac{\text{Total number of deaths of children under the age of five} * 1000}{\text{Total number of live births}}$$

46. **Neonatal period** - commences at birth and ends 28 completed days after birth. Neonatal deaths may be subdivided into early neonatal deaths, occurring during the first seven days of life, and late neonatal deaths, occurring after the seventh day but before the 28 completed days of life.
47. **Neonatal mortality rate** – number of deaths during the first 28 completed days of life per 1000 live births in a given year or period.

$$\frac{\text{Total number of neonatal deaths} * 1000}{\text{Total number of live births}}$$

48. **Early neonatal mortality rate**

$$\frac{\text{Total number of early neonatal deaths} * 1000}{\text{Total number of live births}}$$

49. **Early neonatal mortality rate, weight-specific**

$$\frac{\text{Total number of early neonatal deaths in weight groups of 1000 g and more} * 1000}{\text{Total number of live births in weight groups of 1000 g and more}}$$

50. **Stillbirth (dead born fetus)** - death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.
51. **Stillbirth rate –** the ratio of the number of still deaths in one year to the total number of both live births and fetal deaths in the same year.

$$\frac{\text{Total number of still births} * 1000}{\text{Total number of live births + Total number of still births}}$$

52. **Stillbirth rate, weight-specific**

$$\frac{\text{Total number of still births in weight groups of 1000 g and more} * 1000}{\text{Total number of births in weight groups of 1000 g and more}}$$

53. **Perinatal period** - The perinatal period commences at 22 completed weeks (154 days) of gestation (the time when birth weight is normally 500 g), and ends seven completed days after birth.
54. **Perinatal mortality rate**

$$\frac{\text{Total number of early neonatal deaths + Total number of still births} \times 1000}{\text{Total number of live births + Total number of still births}}$$

55. **Post-neonatal mortality rate**

$$\frac{\text{Infant deaths occurring from 28 days and before 1 year of life} * 1000}{\text{Total number of live births}}$$

56. **Natural increase rate** – a measure of population growth (in the absence of migration) comprising addition of newborns to the population and subtraction of deaths.

a) Crude birth rate - Crude death rate

b) $$\frac{(\text{Live births during a year} - \text{deaths during the year}) * 1000}{\text{Midyear population}}$$

57. **Maternal death** – a maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.
58. **Late maternal death** - a late maternal death is the death of a woman from direct or indirect obstetric causes more than 42 days but less than one year after termination of pregnancy.
59. **Pregnancy-related death** - a pregnancy-related death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death.
    Maternal deaths should be subdivided into two groups:
    Direct obstetric deaths: those resulting from obstetric complications of the pregnant state (pregnancy, labour and puerperium), from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above.
    Indirect obstetric deaths: those resulting from previous existing disease or disease that developed during pregnancy and which was not due to direct obstetric causes, but which were aggravated by physiologic effects of pregnancy.
60. **Maternal mortality rate**

$$\frac{\text{Total number of maternal deaths (direct and indirect)} * 100000}{\text{Total number of women of reproductive age}}$$

61. **Maternal mortality ratio**

$$\frac{\text{Total number of maternal deaths (direct and indirect)} * 100000}{\text{Total number of live births}}$$

62. **Direct obstetric mortality ratio**

$$\frac{\text{Direct obstetric deaths only} * 100000}{\text{Total number of live births}}$$

63. **Pregnancy-related mortality ratio**

$$\frac{\text{Pregnancy-related deaths} * 100000}{\text{Total number of live births}}$$

64. **Estimated life expectancy** – Life expectancy is the average number of years of life remaining to a person at a particular age and is based on a given set of age-specific death rates, generally the mortality conditions existing in the period mentioned. It is calculated by the analysis of life tables (also called a mortality table or actuarial table). Life expectancy may be determined by race, sex, or other characteristics using age-specific death rates for the population with that characteristic. In actuarial science, a life table is a table which shows, for each age, what the probability is that a person of that age will die before his next birthday. Life tables are usually constructed separately for men and for women because of their substantially different mortality rates. Other characteristics can also be used to distinguish different risks, such as smoking status, occupation, and socio-economic class. Two types of life tables are used to divide the life expectancy into life spent in various states: 1) multi-state life tables (also known as increment-decrement life tables) based on transition rates in and out of the different states and to death, and 2) prevalence-based life tables (also known as the Sullivan method) based on external information on the proportion in each state. Life tables can also be extended to show life expectancies in different labor force states or marital status states.
65. **Health Adjusted Life Expectancy - HALE** - an indicator of overall population health. It combines measures of both age- and sex-specific health status, and age- and sex-specific mortality into a single statistic. HALE represents the number of expected years of life equivalent to years lived in full health, based on the average experience in a population. HALE national assessments are based upon the life tables and population surveys, which reveal influence of factors upon the general health status and mental health, and upon the detailed and formation about the main conditions causing disability.
66. **Disability-adjusted life years - DALYs** - the sum of the years of life lost due to premature mortality in the population and the years lost due to disability for incident cases of the health condition. One DALY represents the loss of one year of equivalent full health. DALYs are based on the mortality information, which comprises causes of death for each WHO region and regional epidemiologic assessments of disadvantage circumstances.
67. **Quality adjusted life year (QALY)** - is a measure of disease burden, including both the quality and the quantity of life lived. It is used in assessing the value for money of a medical intervention as a parameter used to rationalize the benefit from different medical treatments or procedures, so as to calculate relative cost-benefit.
68. **Reproductive health** – according to the WHO, Reproductive health is defined as a state of physical, mental, and social well-being in all matters relating to the reproductive system at all stages of life. Reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when, and how often to do so. Implicit in this are the right of men and women to be informed and to have access to safe, effective, affordable, and acceptable methods of family planning of their choice, and the right to appropriate health-care services that enable women to safely go through pregnancy and childbirth.
69. **Breastfeeding** - the child has received breast milk direct from the breast or expressed.
70. **Exclusive breastfeeding** - **t**he infant has received only breast milk from the mother or a wet nurse, or expressed breast milk, and no other liquids or solids with the exception of drops or syrups consisting of vitamins, mineral supplements, or medicines.
71. **Predominant breastfeeding** - the infant's predominant source of nourishment has been breast milk. However, the infant may also have received water and water-based drinks (sweetened and flavored water, teas, infusions, etc.), fruit juice; oral rehydration salts solution (ORS), drop and syrup forms of vitamins, minerals and medicines, and ritual fluids (in limited quantities). With the exception of fruit juice and sugar water, no food-based fluid is allowed under this definition.
72. **Complementary feeding** - the child has received both breast milk and solid or semi-solid food.

73. **Contraceptive prevalence rate**

$$\frac{\text{Women of reproductive age (15-49) who are married or in union and who are currently using any method of contraception} * 100000}{\text{Total number of women of reproductive age (15-49) who are married or in union}}$$

74. **Unmet need for contraception**

$$\frac{\text{Women who are married or in a consensual union who have an unmet need for family planning} * 100}{\text{Total number of women of reproductive age (15-49 years) who are married or in consensual union}}$$

75. **Adolescent pregnancy rate**

$$\frac{\text{The registered number of live-births to women 15 to 19 years of age during a given year + number of abortions in the same age} * 1000}{\text{Total number of women aged 15-19}}$$

76. **Abortion** – is the termination of a pregnancy by the removal or expulsion from the uterus of a fetus or embryo, resulting in or caused by its death. An abortion can occur spontaneously due to complications during pregnancy or can be induced. The term *abortion* most commonly refers to the induced abortion of a pregnancy, while spontaneous abortions are usually termed miscarriages. ***Spontaneous*** abortion is the expulsion of an embryo or fetus due to accidental trauma or natural causes. Most miscarriages are due to incorrect replication of chromosomes; they can also be caused by environmental factors. ***Induced*** abortion is the intentional termination of a pregnancy before the fetus can live independently. An abortion may be elective (based on a woman's personal choice) or therapeutic (to preserve the health or save the life of a pregnant woman). An abortion is considered to be elective if a woman chooses to end her pregnancy, and it is not for maternal or fetal health reasons.
77. **Crude abortion rate** – the number of abortions per 1000 women population of the age 15-49 per year. Is evaluated in ppm (i.e. per 1000 women).
78. **Abortion frequency rate** - the number of abortions per deliveries per year. Shows the number of abortions for 100 deliveries.
79. **Age-specific abortion rate** – the number of abortions of the women of specific age per the number of women of this age per year.
80. **Total induced abortion rate (TIAR)** - is an expected average number of induced abortions per woman in her lifetime if during the course of her childbearing years, she were to experience the age-specific abortion rates prevailing in a given year or period, for a given country or other specified area.
81. **Surgical activity rate per 100000 population**

$$\frac{\text{Total number of surgical operations} * 100000}{\text{Midyear population}}$$

82. **Percent of cesarean sections from all deliveries**

$$\frac{\text{Total number of caesarean sections} * 100}{\text{Total number of deliveries}}$$

83. **Cesarean sections rate per 1000 live births**

$$\frac{\text{Total number of caesarean sections} * 1000}{\text{Total number of live births}}$$

84. **Obligatory registration disease** – Diseases which in view of high severity, prevalence and transmission level, are considered socially dangerous. Each revealed case of such disease must be recorded to local or central public health services controls by medical employees.
85. **HIV incidence**

$$\frac{\text{Total number of new cases of HIV infection} * 100000}{\text{Midyear population}}$$

86. **HIV new cases distribution by ways of transmission (%)**

$$\frac{\text{Total number of new cases of HIV infection by the specific way of transmission} * 100}{\text{Total number of new cases of HIV infection}}$$

87. AIDS incidence

$$\frac{\text{Total number of new cases of AIDS} * 100000}{\text{Midyear population}}$$

88. HIV testing coverage rate among pregnant women

$$\frac{\text{Total number of HIV tested pregnant women} * 100}{\text{Total number of enrolled pregnancies}}$$

89. Percentage of HIV positive pregnant women among HIV tested pregnant women

$$\frac{\text{Total number of HIV positive pregnant women} * 100}{\text{Total number of HIV tested pregnant women}}$$

90. Antiretroviral prevention therapy coverage among HIV-infected pregnant women

$$\frac{\text{Number of HIV positive pregnant women who received any antiretroviral treatment to reduce the risk of mother-to-child transmission during 1 year} * 100}{\text{Total number of HIV positive pregnant women in a given year (including tested during delivery)}}$$

Percentage of HIV positive children, born by HIV infected mothers

where:

T = proportion of HIV-positive pregnant women provided with antiretroviral treatment;

v = mother-to-child transmission rate in the absence of any treatment;

e = efficacy of treatment provided.

Default values of 25% and 50%, respectively, can be used for *v* and *e*.

91. Percent of HIV infected donors

$$\frac{\text{Total number of HIV positive donors} * 100000}{\text{Total number of HIV tested donors}}$$

92. Percent of new HIV positive cases among tuberculosis patients

$$\frac{\text{Total number of new HIV positive cases among tuberculosis patients} * 100000}{\text{Total number of HIV tested tuberculosis patients}}$$

93. Incidence of syphilis

$$\frac{\text{Total number of new cases of syphilis} * 100000}{\text{Midyear population}}$$

94. Incidence of gonococcal infection

$$\frac{\text{Total number of new cases of gonococcal infection} * 100000}{\text{Midyear population}}$$

95. Incidence of syphilis among pregnant women

$$\frac{\text{Number of new cases of syphilis in pregnant women*} 100000}{\text{Total number of pregnant women tested for syphilis}}$$

96. Incidence of trichomoniasis

$$\frac{\text{Total number of new cases of trichomoniasis} * 100000}{\text{Midyear population}}$$

97. Incidence of trichomoniasis among women of reproductive age

$$\frac{\text{Number of new cases of trichomoniasis in women of reproductive age} * 100000}{\text{Total number of women aged 15-19}}$$

98. Incidence of chlamidiosis

$$\frac{\text{Total number of new cases of chlamidiosis} * 100000}{\text{Midyear population}}$$

99. Incidence of chlamidiosis among women of reproductive age

$$\frac{\text{Number of new cases of chlamidiosis in women of reproductive age} * 100000}{\text{Total number of women aged 15-19}}$$

100. Notification rate for new smear-positive cases

$$\frac{\text{Number of new smear-positive cases registered during a year} * 100000}{\text{Midyear population}}$$

101. Case detection ratio of new smear-positive cases - The case detection ratio is the number of new pulmonary smear-positive cases detected, expressed as a percentage of the estimate of new smear-positive cases. It provides a measure of case finding coverage. The target is to achieve a case detection ratio of more, than 70%. A very important indicator, which provides an indication of the effectiveness of national TB programs in finding and diagnosing people with TB.

$$\frac{\text{Number of new smear-positive cases registered during a year} * 100}{\text{Number of new smear-positive cases estimated to occur during the year in that population}}$$

102. TB vaccination coverage

$$\frac{\text{Number of children under 1 year of age, vaccinated against tuberculosis} * 100}{\text{Total number of children under 1 year of age}}$$

103. DPT3 vaccination coverage

$$\frac{\text{Number of children under 1 year of age, vaccinated with DPT-3} * 100}{\text{Total number of children under 1 year of age}}$$

104. Measles vaccination coverage

$$\frac{\text{Number of children under 2 years of age, vaccinated with measles vaccine} * 100}{\text{Total number of children under 2 years of age}}$$

105. Polio vaccination coverage

$$\frac{\text{Number of children under 1 year of age, vaccinated with Polio-3 vaccine} * 100}{\text{Total number of children under 1 year of age}}$$

106. HpB3 vaccination coverage

$$\frac{\text{Number of children under 1 year of age, vaccinated with HpB-3 vaccine} * 100}{\text{Total number of children under 1 year of age}}$$

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