Health Care Highlights

GEORGIA

2019

Highlights

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ABBREVIATIONS

AFP	Acute Flaccid Paralysis
AIDS	Acquired Immune Deficiency Syndrome
AMR	Anti-microbial Resistance
ANC	Antenatal Care
COPD	Chronic Obstructive Pulmonary Diseases
CRD	Chronic Respiratory Diseases
EDPs	Especially Dangerous Pathogens
EIDSS	Electronic Integrated Disease Surveillance System
GAVI	Global Vaccine Alliance
GBD	Global Burden of Disease Study
GEL	Georgian Lari
GFTAM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GLAAS	Global analysis and Assessment of Sanitation and Drinking-Water Survey
HCV	Hepatitis C virus
HFA DB	Health For All Data Base
HIV	Human Immunodeficiency Virus Infection
HPV	Human Papillomavirus
IGME	Inter-agency Group for Child Mortality Estimation
IHME	Institute for Health Metrics and Evaluation
IHR	International Health Regulations
IPC	Infection Prevention and Control
IPV	Inactivated Polio Vaccine
LB	Live Births
M/XDR	Multidrug and extensively drug-resistant TB
MDG	Millennium Development Goals
MDR-TB	Multi Drug Resistant TB
MMEIG	Maternal Mortality Estimation Interagency Group
MoLHSA	Ministry of Labor, Health and Social Affairs
NCDC	National Center for Disease Control and Public Health
NEHAP	National Environmental Health Action Plan
NSO	National Statistics Office of Georgia
CR	Population-based Cancer Registry
PCR	Polymerase chain reaction
RHS	Reproductive Health Survey
SBA	Skilled Birth Attendance
SDG	Sustainable Development Goals
STI	Sexually Transmitted Infections
TB	Tuberculosis
UHC	Universal Health Coverage
VOT	Video Observed Therapy
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WTO	World Trade Organization

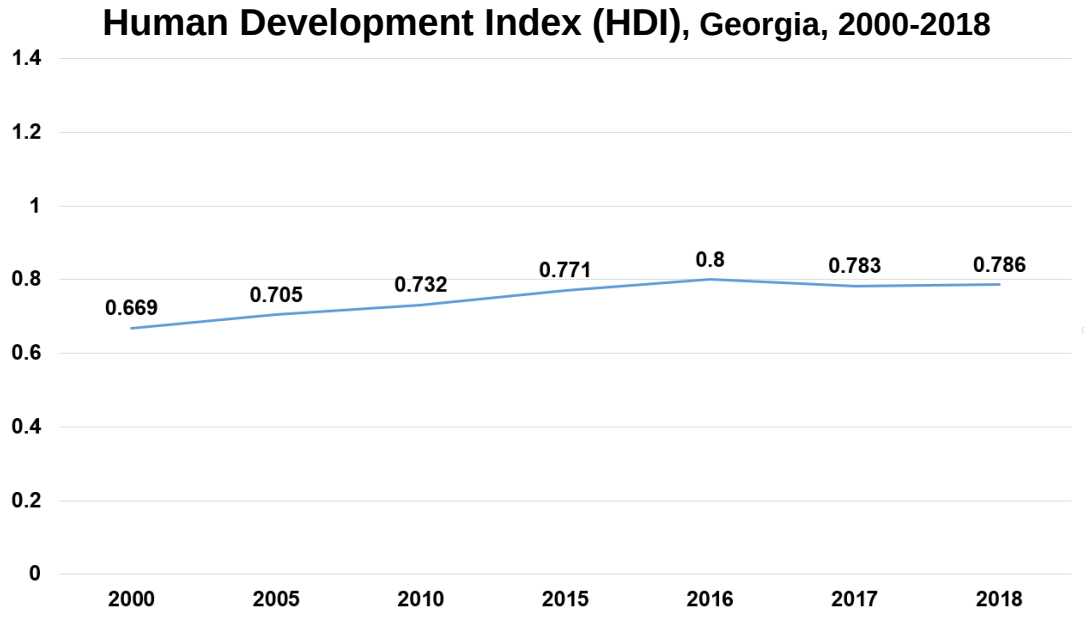
SOME INDICATORS, REFLECTING THE DEVELOPMENT OF GEORGIA

Last years the Government of Georgia has implemented systematic reforms. Georgia has achieved significant improvements in the field of human rights, government transparency, freedom from corruption, effective governance, market efficiency and favorable business environment. Successful and effective implementation of the structural reforms caused remarkable improvement of Georgia's position in various international rankings. As a result, Georgia gained remarkable achievements in international rankings and takes the leading position amongst the countries of the world and regions.

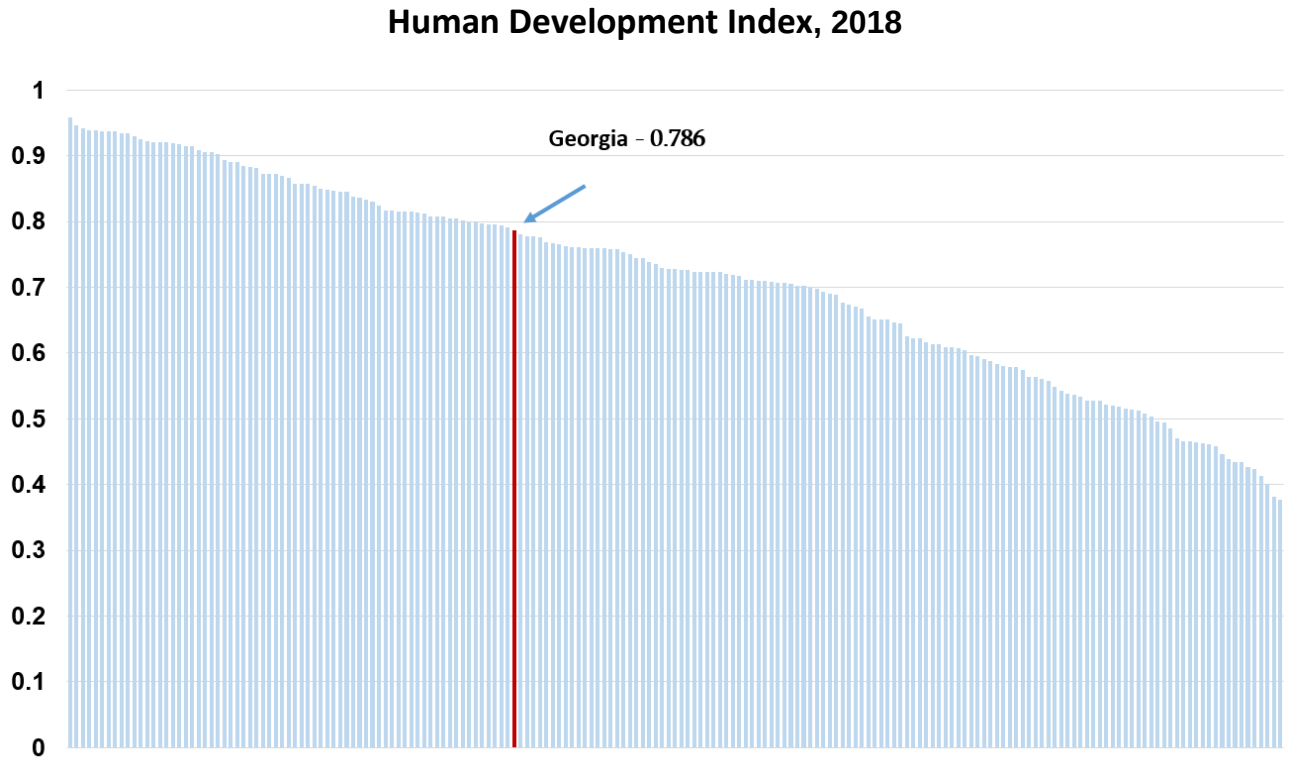
HUMAN DEVELOPMENT INDEX (HDI)

The HDI is a summary measure for assessing long-term progress in three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. A long and healthy life is measured by life expectancy. Knowledge level is measured by mean years of schooling among the adult population, which is the average number of years of schooling received in a life-time by people aged 25 years and older; and access to learning and knowledge by expected years of schooling for children of school-entry age, which is the total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life. Standard of living is measured by Gross National Income (GNI) per capita expressed in constant 2011 international dollars converted using purchasing power parity (PPP) conversion rates.

Between 2000 and 2018, Georgia's HDI value increased from 0.669 to 0.786, an increase of 17.5 percent. Between 1990 and 2018, Georgia's life expectancy at birth increased by 3.2 years, mean years of schooling increased by 1.1 years and expected years of schooling increased by 3.0 years. Georgia's GNI per capita increased by about 19.8 percent between 1990 and 2018.



In 2018, Georgia's HDI was 0.786, which is higher than the average of countries with high HDI rates (0.750) and also higher than the average of the European and Central Asia countries. Georgia ranks 70th among 190 countries.



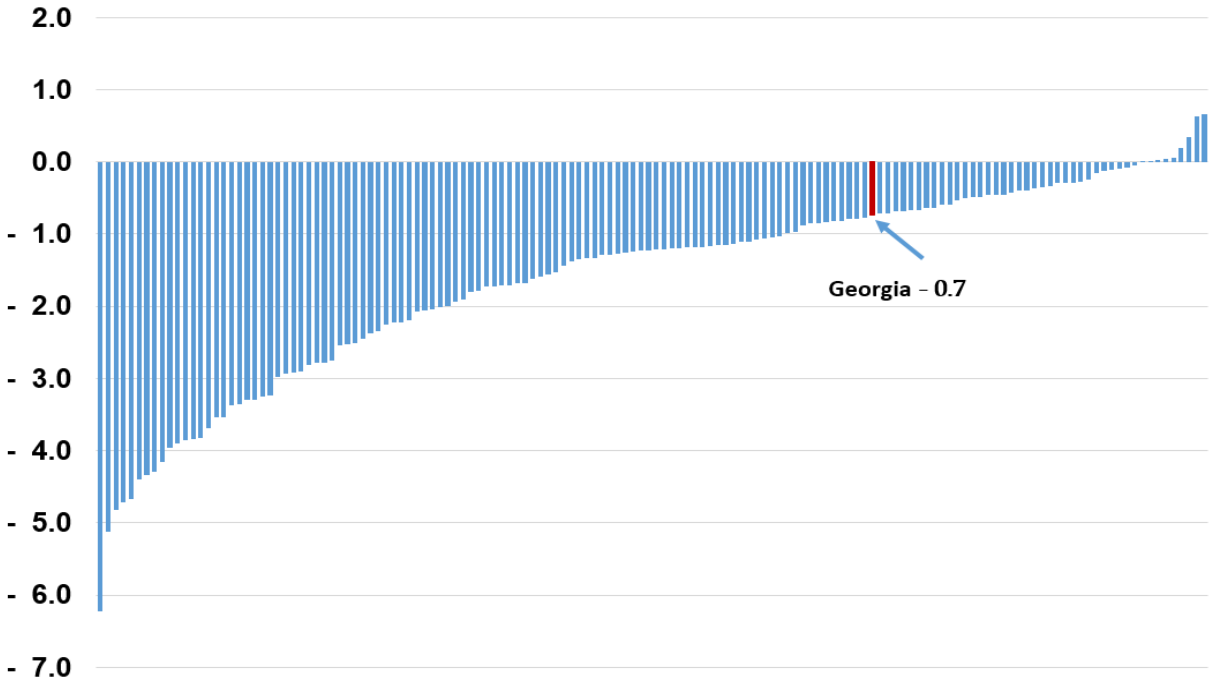
GENDER DEVELOPMENT INDEX (GDI)

In the 2014 HDR, Human Development Report Office (HDRO) introduced a new measure, the GDI, based on the sex-disaggregated Human Development Index, defined as a ratio of the female to the male HDI. The GDI measures gender inequalities in achievement in three basic dimensions of human development: health (measured by female and male life expectancy at birth), education (measured by female and male expected years of schooling for children and mean years for adults aged 25 years and older) and command over economic resources (measured by female and male estimated GNI per capita). The 2018 female HDI value for Georgia is 0.775 in contrast with 0.791 for males, resulting in a GDI value of 0.979.

GENDER INEQUALITY INDEX (GII)

The 2010 HDR introduced the GII, which reflects gender-based inequalities in three dimensions – reproductive health, empowerment, and economic activity. Reproductive health is measured by maternal mortality and adolescent birth rates; empowerment is measured by the share of parliamentary seats held by women and attainment in secondary and higher education by each gender; and economic activity is measured by the labour market participation rate for women and men. The GII can be interpreted as the loss in human development due to inequality between female and male achievements in the three GII dimensions.

Gender Inequality Index, 2005-2018



http://hdr.undp.org/en/content/dashboard-5-socioeconomic-sustainability-0

Georgia has a GII value of 0.351, ranking it 75 in the 2018 index. In Georgia, 16.0 percent of parliamentary seats are held by women, and 97.4 percent of adult women have reached at least a secondary level of education compared to 98.6 percent of their male counterparts. For every 100,000 live births, 36.0 women die from pregnancy related causes; and the adolescent birth rate is 46.4 births per 1,000 women of ages 15-19. Female participation in the labour market is 57.8 percent compared to 78.7 for men.

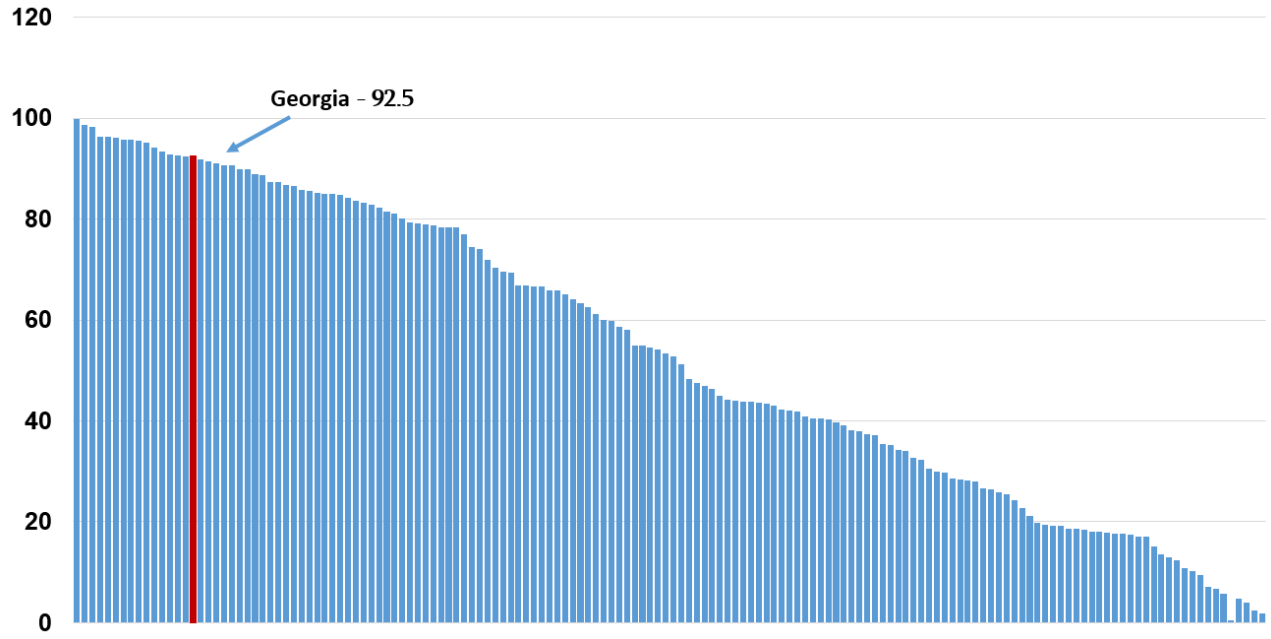
Gender Inequality Indicators, Georgia and Countries with High HDI, 2018

		Georgia	Countries with high HDI
Maternal mortality rate		36.0	56.0
Adolescent pregnancy rate		46.6	33.6
Parliamentary seats held by women, (%)		16.0	24.4
High education (%)	Female	97.4	68.9
	Male	98.6	74.5
Employment (%)	Female	57.8	53.9
	Male	78.7	75.6

Skilled labor is a segment of the workforce that has specialized know-how, training, and experience to carry out more complex physical, or mental tasks than routine job functions. Skilled labor is generally characterized by higher education, expertise levels attained through training and experience, and will likewise correspond with higher wages. (https://www.investopedia.com/terms/s/skilled-labor.asp).

Georgia ranks 16th among 154 countries in terms of skilled labor

Skilled labor indicator (%), 2010-2018



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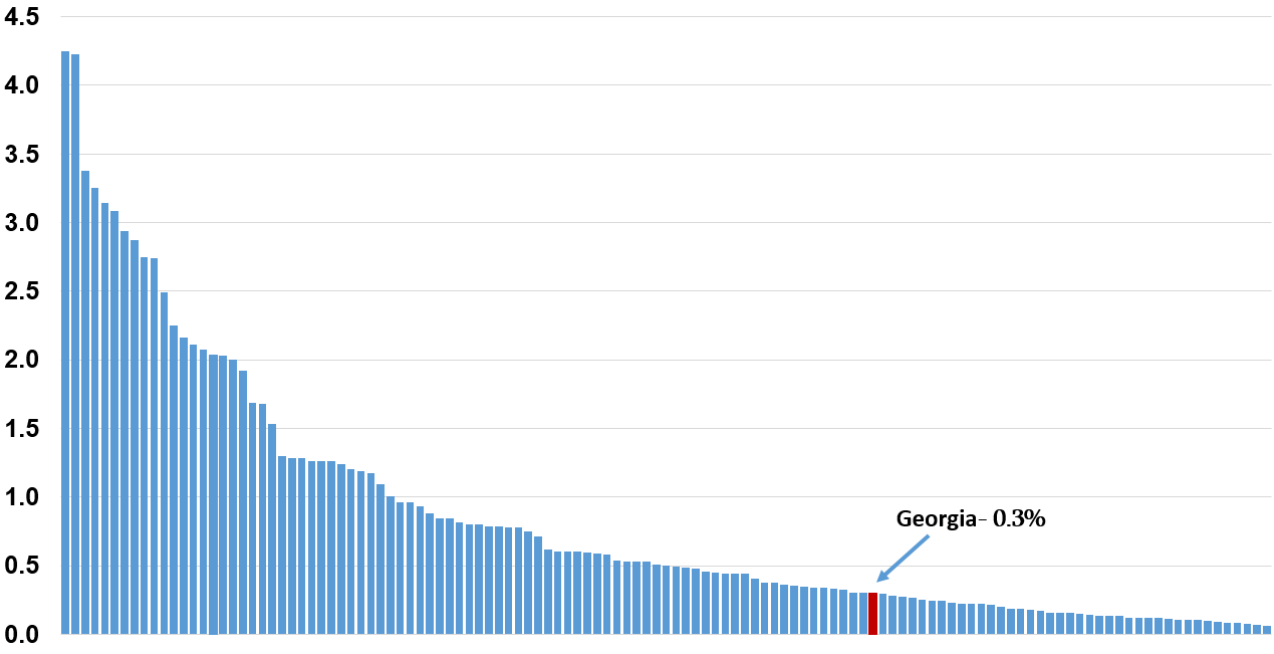
One of the most important indicators of the country's development is the share of expenditures on scientific research and development, which is calculated as the share of expenditures on scientific research by research institutes, universities, various companies and government agencies (including foreign investment) of the country's gross domestic product. Georgia ranks 83rd among 123 countries (this indicator = 0.3%).

Financing of scientific research and development (% of GDP), 2010-2017



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SUSTAINABLE DEVELOPMENT GOALS

In 2015, Sustainable Development Goals (SDGs) have been adopted at the UN Summit after a partial achievement of the Millennium Development Goals – MDGs, to maintain and further advance the successes.

SDGs represent a continuation of the Millennium Development Goals until 2030. The 17 goals of sustainable development are broader and more ambitious than the Millennium Development Goals, and represent the agenda that ensures that "no one should be left behind".

SDGs are aimed at the eradicating poverty, prioritizing of health, education, food security and accessibility, and cover a wide range of issues such as economics, social and environmental goals, aspiring more peaceful and engaged societies. The third strategic goal is to achieve healthy living and well-being for people of all ages, ensuring access to safe and effective medicines and vaccines, universal access to healthcare services, which is a major priority for global health.

In 2018, countries have integrated SDGs into their programs. Georgia shares global sustainable development initiatives and is actively involved in monitoring of the progress of the achievement of the above mentioned goals.

The third strategic goal is to achieve a healthy life and well-being by 2030 for people of all ages, to provide universal access to safe and effective medicines and vaccines for all, to provide an universal access to health care, which is a top priority for global health, to facilitate the implementation of the Framework Convention on Tobacco Control developed by the World Health Organization, etc.

1.1 Average Performance by SDG, Georgia, 2019[1]

	Value	Rating	Trend
SDG3 – Good Health and Well-Being			
Maternal mortality rate (per 100,000 live births))	25.0		
Neonatal mortality rate (per 1,000 live births)	5.9		
Mortality rate, Under-5 (per 1,000 live births)	9.8		
Incidence of tuberculosis (per 100,000 population)	80		
HIV prevalence (per 1,000)	0.2		
Age-standardized death rate due to cardiovascular disease, cancer,	24.9		

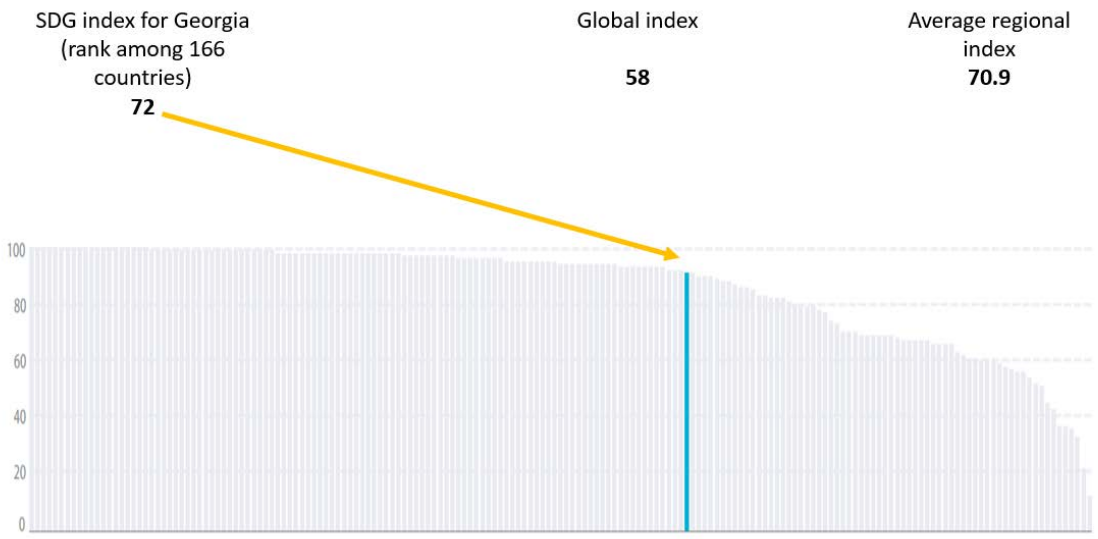
diabetes, and chronic respiratory disease in populations age 30–70 years (per 100,000 population)			
Age-standardized death rate attributable to household air pollution and ambient air pollution (per 100,000 population)	102		
Traffic deaths rate (per 100,000 population	15.3		
Life Expectancy at birth (years)	72.6		
Adolescent fertility rate (births per 1,000 women ages 15-19)	46.4		
Births attended by skilled health personnel (%)	99.9		
Surviving infants who received 2 WHO-recommended vaccines (%)	93		
Universal Health Coverage Tracer Index (0-100)	66		
Subjective Wellbeing (average ladder score, 0-10)	4.9		

Rating	Trend
SDG achieved	**Maintaining SDG achievement**
Challenges remain	**Score moderately increasing, insufficient to attain goal**
Significant challenges remain	**Score stagnating or increasing at less than 50% of required rate**
Major challenges remain	**Decreasing**
Information unavailable	**Information unavailable**

Source: https://dashboards.sdgindex.org/static/countries/profiles/Georgia.pdf

To assess the overall progress of the SDG, a so-called SDG Global Index was developed. This index is a consolidated indicator of all objectives. According to this index, Georgia ranks 58th among 166 countries and is 1.4% behind the regional average.

SDG Global Index, 2019



Source: *https://dashboards.sdgindex.org/static/countries/profiles/Georgia.pdf*

DEMOGRAPHY AD SOCIAL-ECONOMIC INDICATORS

Area, km^2	69 700
Administrative units	11 regions, 64 raions
Capital	Tbilisi
Mid-year population	3 720 200
Females	51.9%
Males	48.1%
Urban population	59.0%
Ethnical composition (according to the Census 2014)	Georgian - 86.8%, Azeri - 6.3%, Armenian - 4.5%, Other - 2.4%
Main religions (according to the Census 2014)	Orthodox Christian - 83.4%, Muslim - 10.7%, Armenian Apostolic - 2.9%, Catholic - 0.5%
State system	Parliamentary republic
Independence	Since 1991
National currency	Lari
Membership in international organizations	UN, IMF, WHO, WB, WTO, other
GDP per capita, US$	4 763.5 (2019)
Human development index	0.786 (2018)
GDI	0.979 (2018)
GII	0.351(2018)

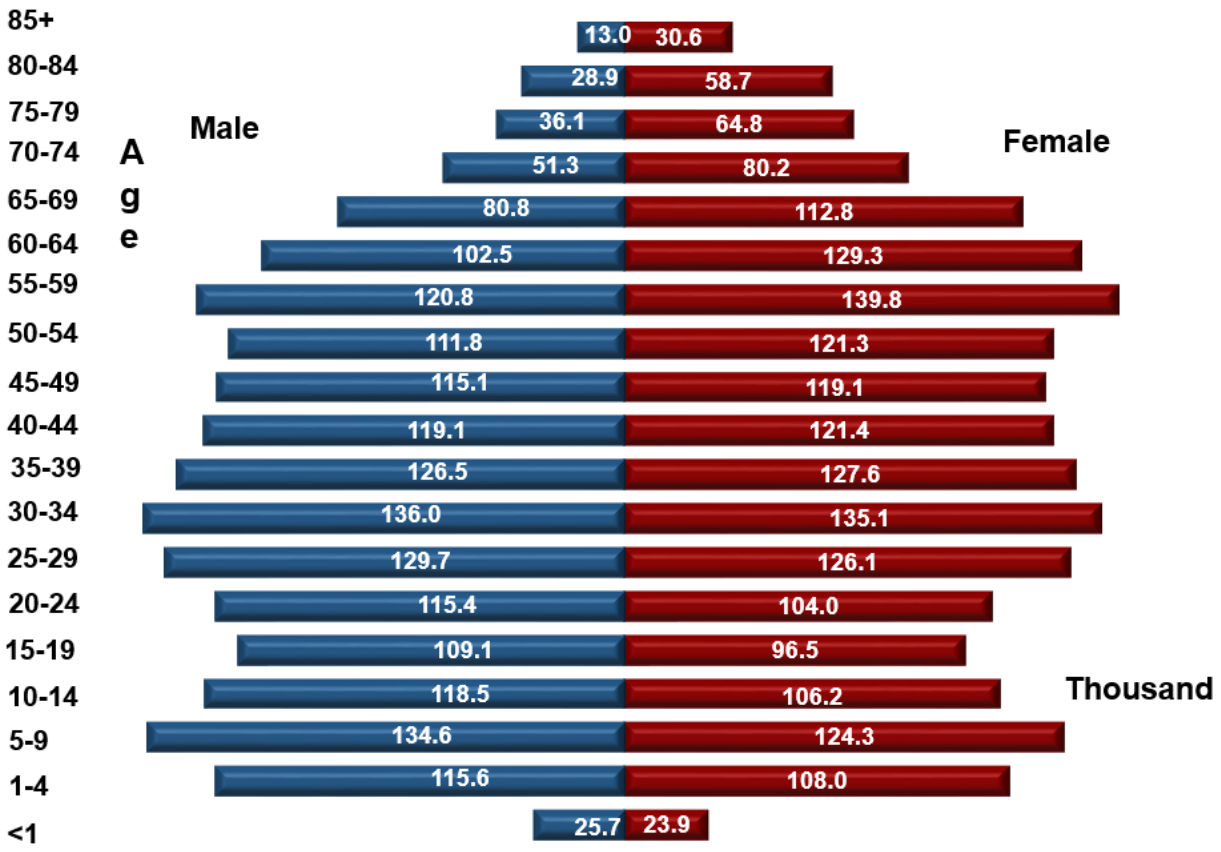
Key Demographic Indicators, Georgia

	2017	2018	2019
Number of live births (per 1000 population)	53 293 (14.3)	51 138 (13.7)	48 296 (13.0)
Total fertility rate	2.14	2.12	2.01
Adolescent birth rate (per 1000 women aged under 20)	36.2	32.0	29.4
Natural increase of population (per 1000 population)	5 471 (1.5)	4 614 (1.2)	1 637 (0.4)
Number of deaths (and death rate per 1000 population)	47 822 (12.8)	46 524 (12.5)	46 659 (12.5)
Stillbirth rate (per 1000 births)	506 (9.4)	438 (8.5)	457 (9.4)
Life expectancy at birth (years)	73.5	74.0	74.1
Marriages (per 1000 population)	23 684 (6.4)	23 202 (6.2)	23 285 (6.3)
Divorces (per 1000 population)	10 222 (2.7)	10 288 (2.8)	11 205 (3.0)
Migration balance per 1000 population	-2 212 (-0.6)	-10 783 (-2.9)	-8 243 (-2.2)

Source: National Office for Statistics

In 2019 the annual mid-year population number was 3 720161; females constitute 51.9% of the total number and males -48.1%

Population pyramid, Georgia, 2019

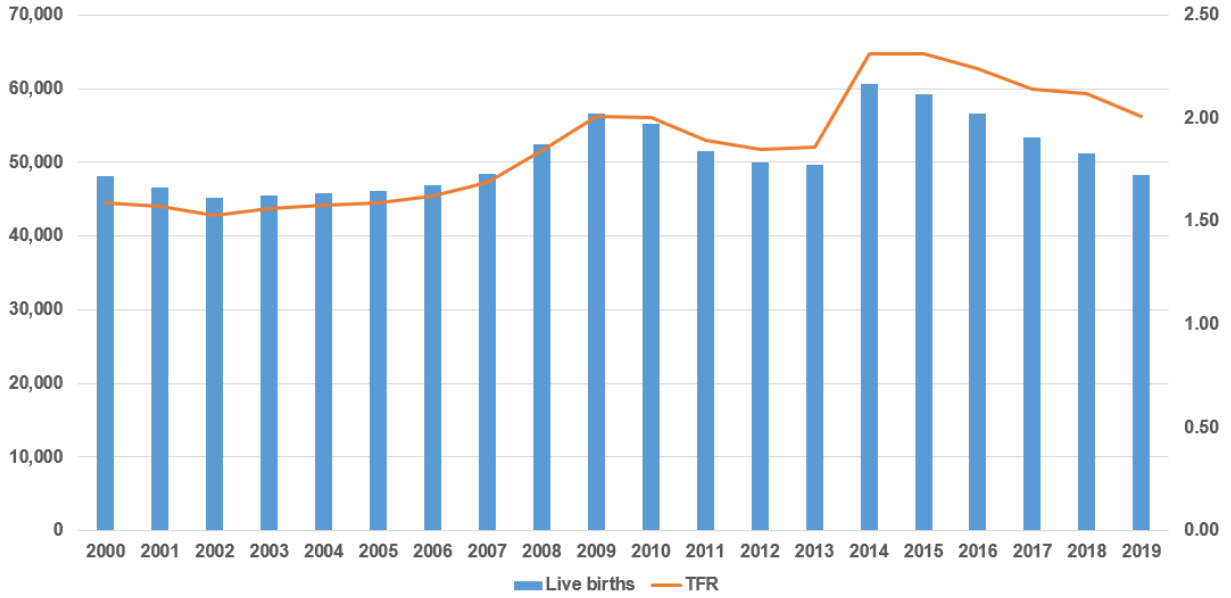


Source: National Office for Statistics

Birth rate

In 2019, in Georgia, the trend for decreasing of the number of live births continues. The total fertility rate equasl to 2.

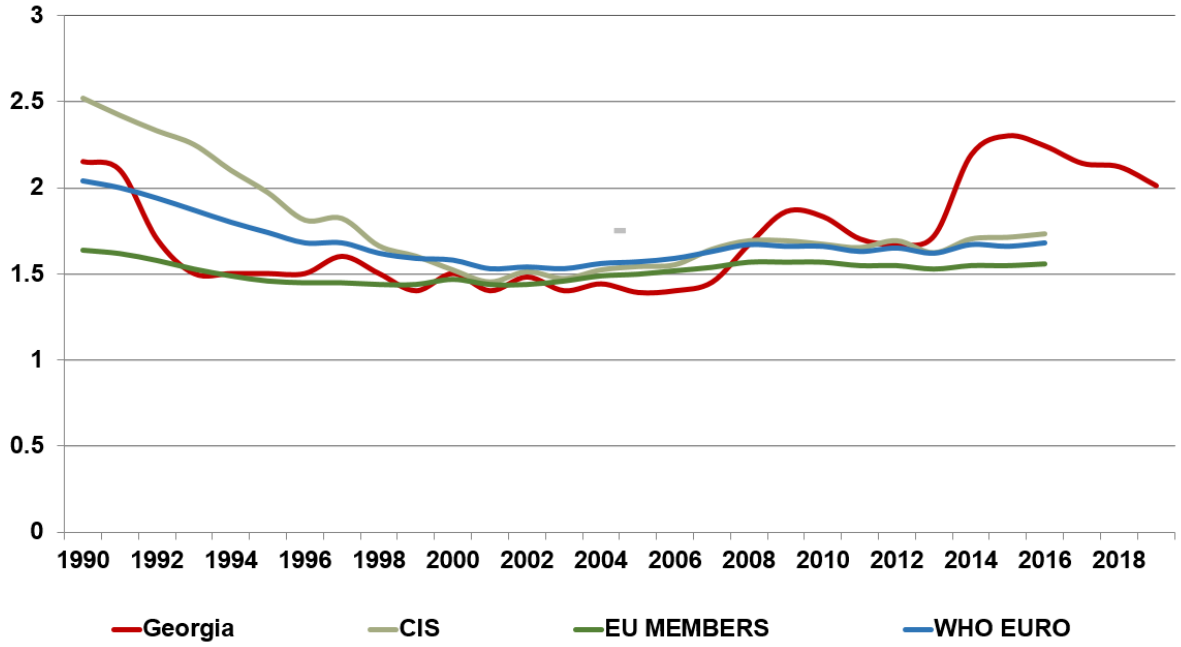
Total fertility rate, Georgia



Source: National Office for Statistics

Despite of the decrease of the total fertility rate, its value exceeds the value of the CIS, EU Member countries, and the countries of the European region.

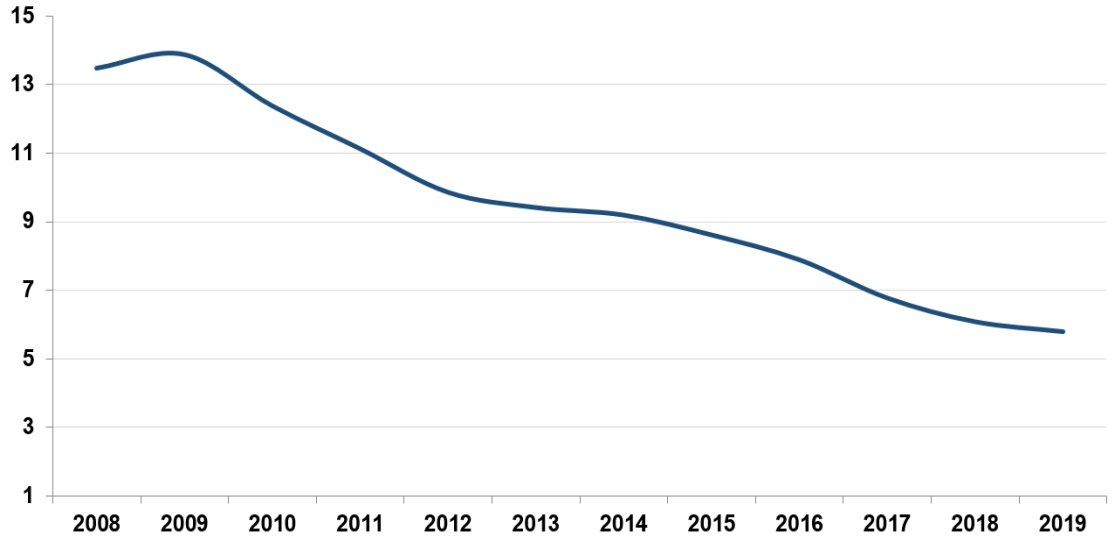
Total fertility rate (TFR)



Source: Health for All Database, National Office for Statistics

In Georgia, the trend for declining of the adolescents' birth rate continued from 2010, and in 2019, the share of live births among women aged under-20 was 5.8%.

The Share of Births to Women Aged under-20 in the Total Number of Live Births, Georgia

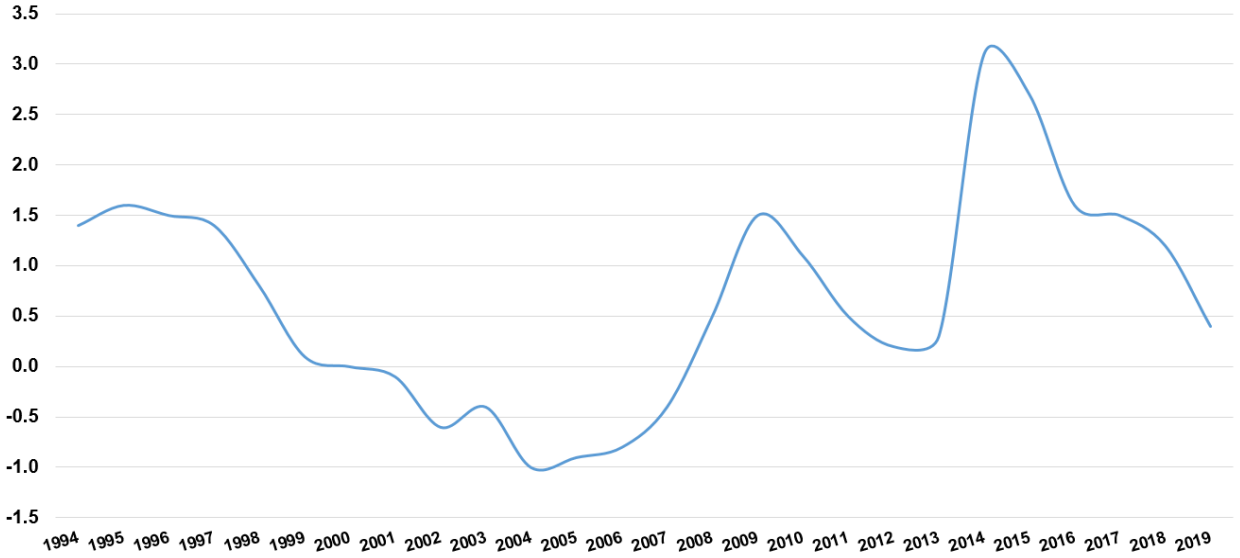


Source: National Office for Statistics

POPULATION NATURAL INCREASE

In 2019, in Georgia, the natural increase rate per 1,000 population decreased to 0.4 (in 2018 - 1.2). Positive natural increase was observed only in 3 regions of Georgia: Ajara, Tbilisi, and Kvemo Kartli.

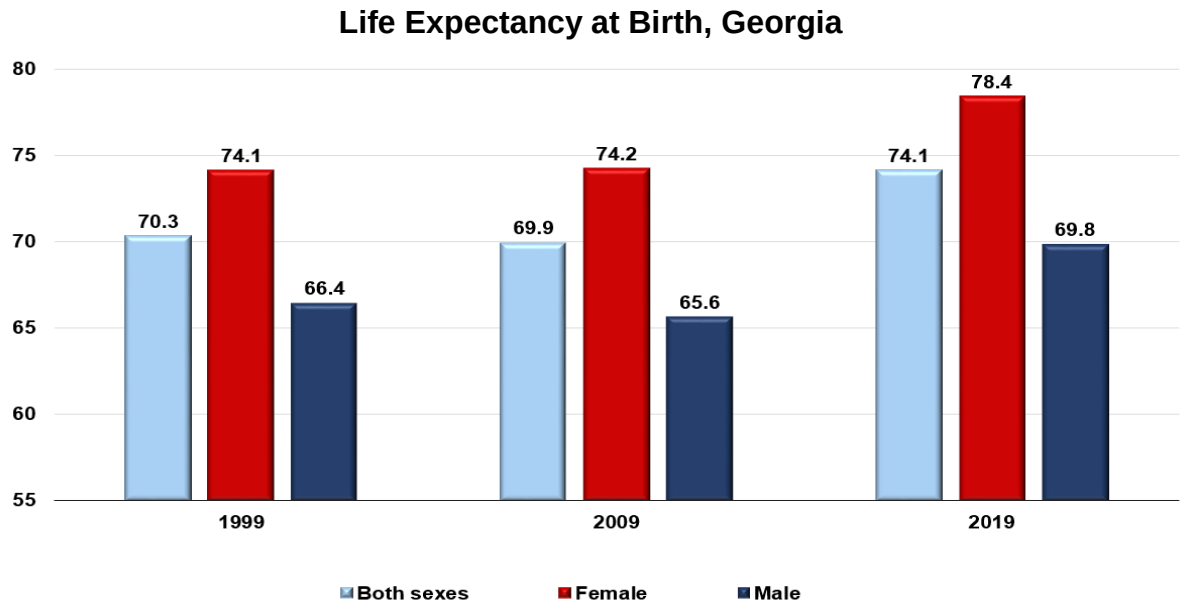
Natural Increase, Georgia



Source: National Office for Statistics

Life Expectancy at Birth

Last years, a tendency for increase of the life expectancy at birth in women and men was observed in Georgia. In 2019, life expectancy at birth for both sexes was 74.0: for women - 78.2; for men - 69.7.



Source: National Office for Statistics

MORTALITY

Over last few decades the World has seen a trend of mortality decreasing and life expectancy increasing. Such change is partly related to the increase of the share of non-fatal diseases and a reduction of deaths due to traumatic injuries and to improved control of risk factors, early detection of diseases, and to improved disease management.

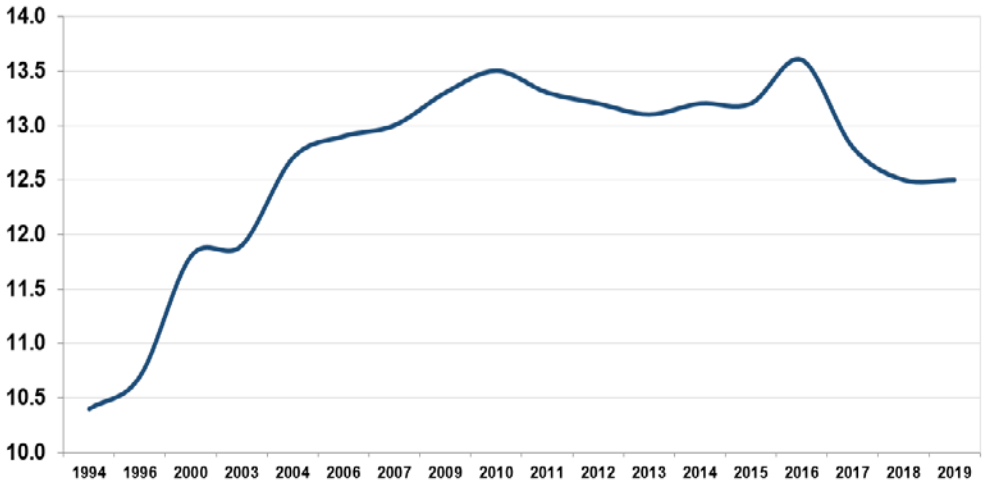
According to the data of the National Statistics Office of Georgia, in Georgia in 2019, 46,659 people died. 51.5% of cases were registerd in men, and 48.5% on women, 1.1% - in children aged under-15.

Mortality structure by age and sex, Georgia, 1999, 2009, 2019

Age	1999			2009			2019		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
0	1 286	772	514	1 272	734	538	380	214	166
1-4	136	90	46	128	62	66	72	40	32
5-9	95	67	28	72	32	40	34	20	14
10-14	92	59	33	88	50	38	55	36	19
15-19	184	130	54	184	114	70	112	85	27
20-24	269	206	63	398	270	128	165	123	42
25-29	388	296	92	520	400	120	221	170	51
30-34	515	386	129	608	460	148	307	242	65
35-39	839	622	217	842	636	206	477	368	109
40-44	1 111	813	298	1 230	900	330	696	548	148
45-49	1 462	996	466	1 718	1 272	446	1 108	858	250
50-54	2 016	1 410	606	2 138	1 544	594	1 676	1 225	451
55-59	1 888	1 223	665	2 438	1 626	812	2 899	2 096	803
60-64	4 689	2 909	1 780	2 490	1 468	1 022	3 756	2 650	1 106
65-69	5 799	3 374	2 425	6 440	3 844	2 596	4 446	2 785	1 661
70-74	7 961	4 133	3 828	7 118	3 736	3 382	4 464	2 539	1 925
75-79	7 452	2 924	4 528	8 940	4 338	4 602	6 289	2 974	3 315
80-84	5 198	1 571	3 627	7 518	3 036	4 482	9 269	3 824	5 445
85+	6 529	1 897	4 632	6 652	1 872	4 780	10 233	3 222	7 011
Total	**47909**	**23878**	**24031**	**50794**	**26394**	**24400**	**46659**	**24019**	**22640**

The total mortality rate in the general population is relatively stabile during last 3 years.

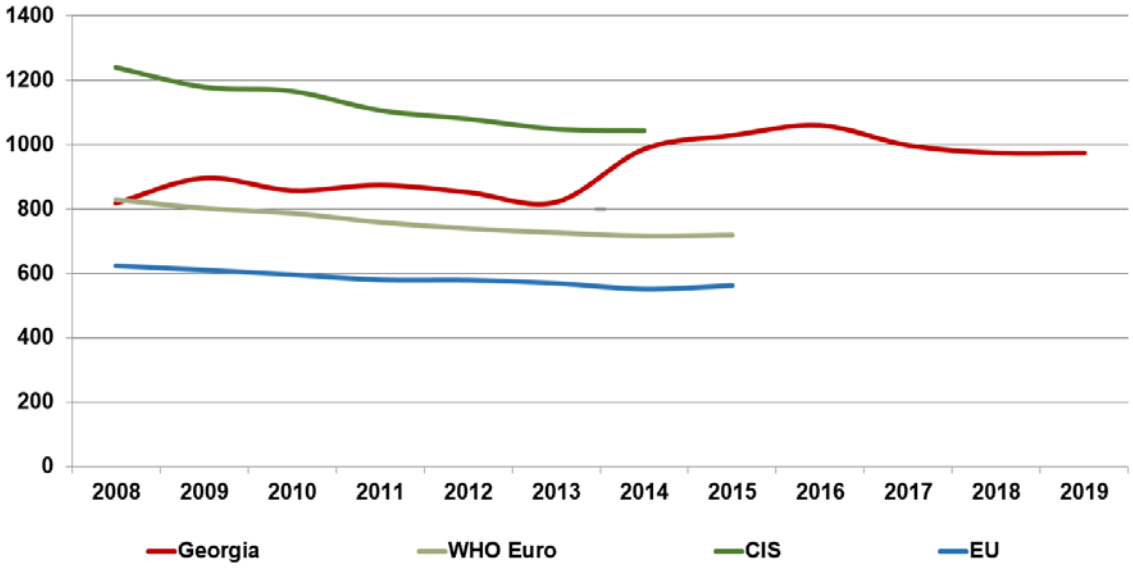
Total Mortality rate per 100 000 population, Georgia



Source: National Office for Statistics

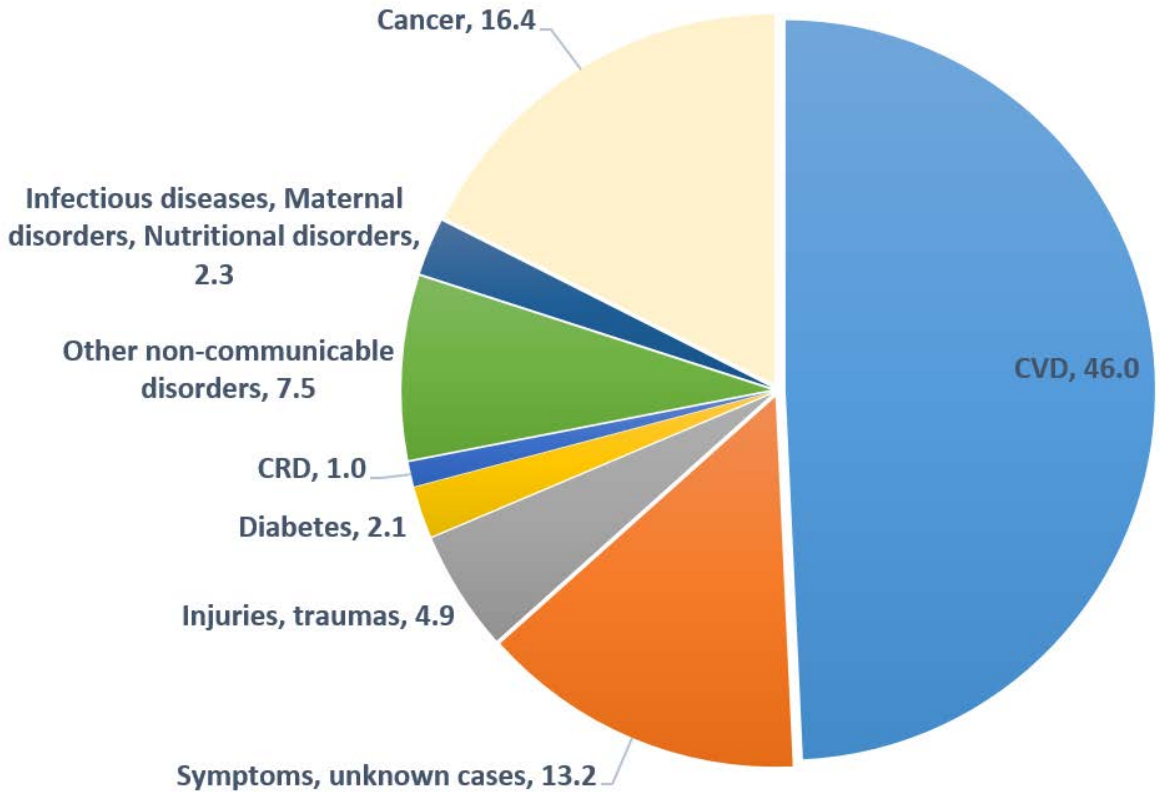
According to the World Health Organization information, the age-standardized mortality rate in Georgia exceeds the average rates in the countries in the European region and the European Union.

Age-standartized Mortality Rate per 100000 population

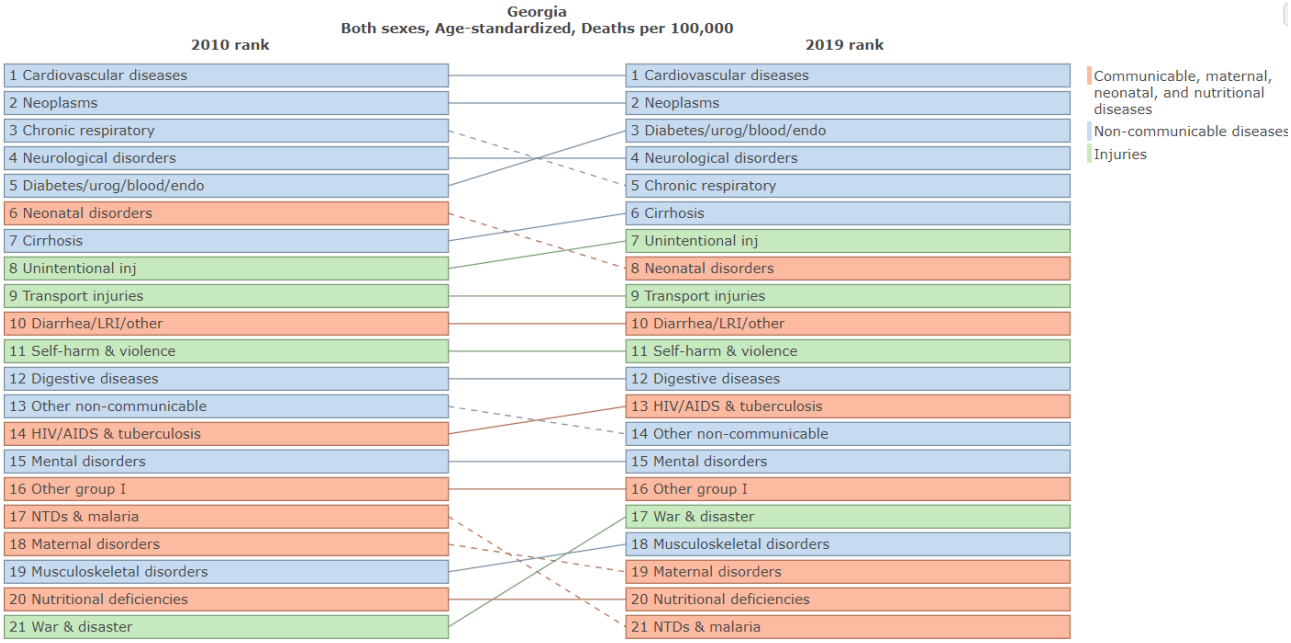


In Georgia, as in the most countries of the World, non-communicable diseases are the main burden of mortality.

Mortality Structure, Georgia, 2019



Causes of Death per 100 000 Population, Georgia, 2010-2019, All Age Groups



Source: http://vizub.healthdata.org/gbd-foresight/h

Last years, the number of unknown and incorrectly assigned causes of death is declining. As a result of activities, carried out by the National Center for Disease Control, inter-agency cooperation and the involvement of municipal public health centers, the quality of identifying the cause of death has improved and the share of unidentified causes of death has been reduced to 13.2%.

MATERNAL AND CHILD HEALTH AND MORTALITY

Main indicators of reproductive health, Georgia

	2015	2016	2017	2018	2019
Coverage with at least 4 antenatal care visits	88.3%	81.2%	85.0%	81.0%	83.0%
Coverage with at least 8 antenatal care visits	-	-	11%	22%	42%
Coverage with at least 1 antenatal care visit	99.5%	99.4%	94.4%	94.3%	95.3%
Timely initiated antenatal care	83.0%	85.0%	89.1%	89.0%	90.7%
Number of deliveries	58830	55940	52660	50468	47571
Term deliveries share	82.1%	81.9%	86.8%	92.0%	91.7%
Normal deliveries	55.0%	52.7%	52.4%	55.0%	58.0%
Pathological deliveries (caesarean sections, forceps, vacuum delivery, all delivery process complication)	45.0%	47.3%	47.6%	44.6%	42.0%
Proportion of births attended by skilled health personnel	99.8%	99.9%	99.9%	99.9%	99.8%
Abortions	32428	28720	24937	22733	21559
Including induced abortions	77%	74%	64%	62%	62%

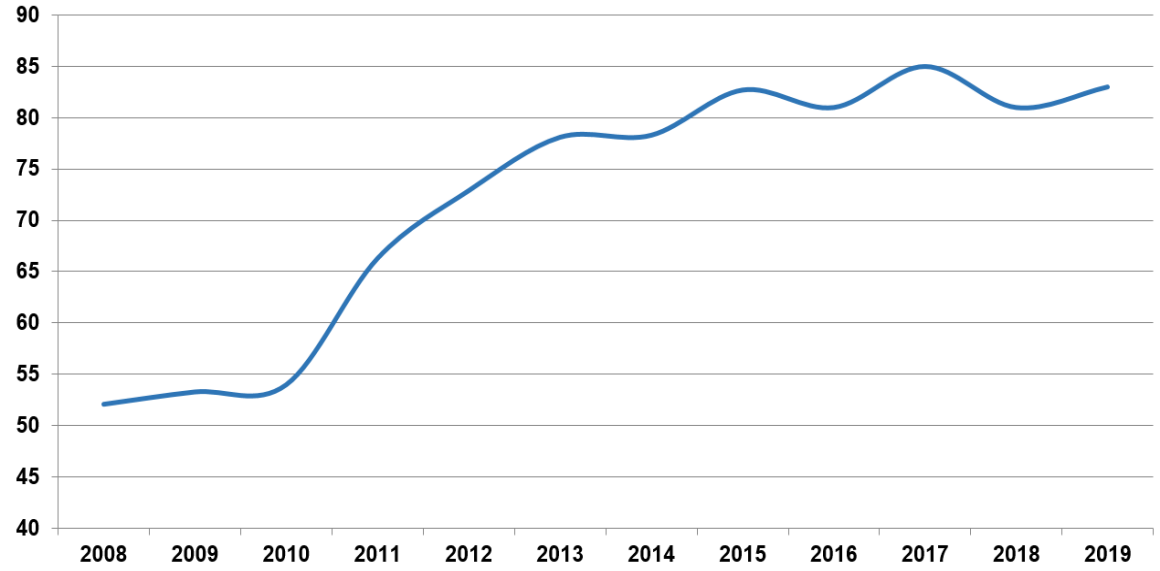
ANTENATAL CARE

The UN Sustainable Development Goals (SDG) set a target for some indicators of maternal health.

SDG 3.1 Goals and Georgian Data

Indicator	Recommendations to reach SDG 3.1	Actual data (Georgia 2019)
Coverage with at least 1 antenatal care visit	91%	90.7%
Coverage with at least 4 antenatal care visits	78%	83%
Coverage with HIV and syphylis testing	95%	89%
Proportion of births in health facilities	81%	99.9%
Proportion of births attended by skilled health personnel	87%	99.8%

Share of Pregnant Women (%) Initiating Antenatal Care During the 1st Trimester



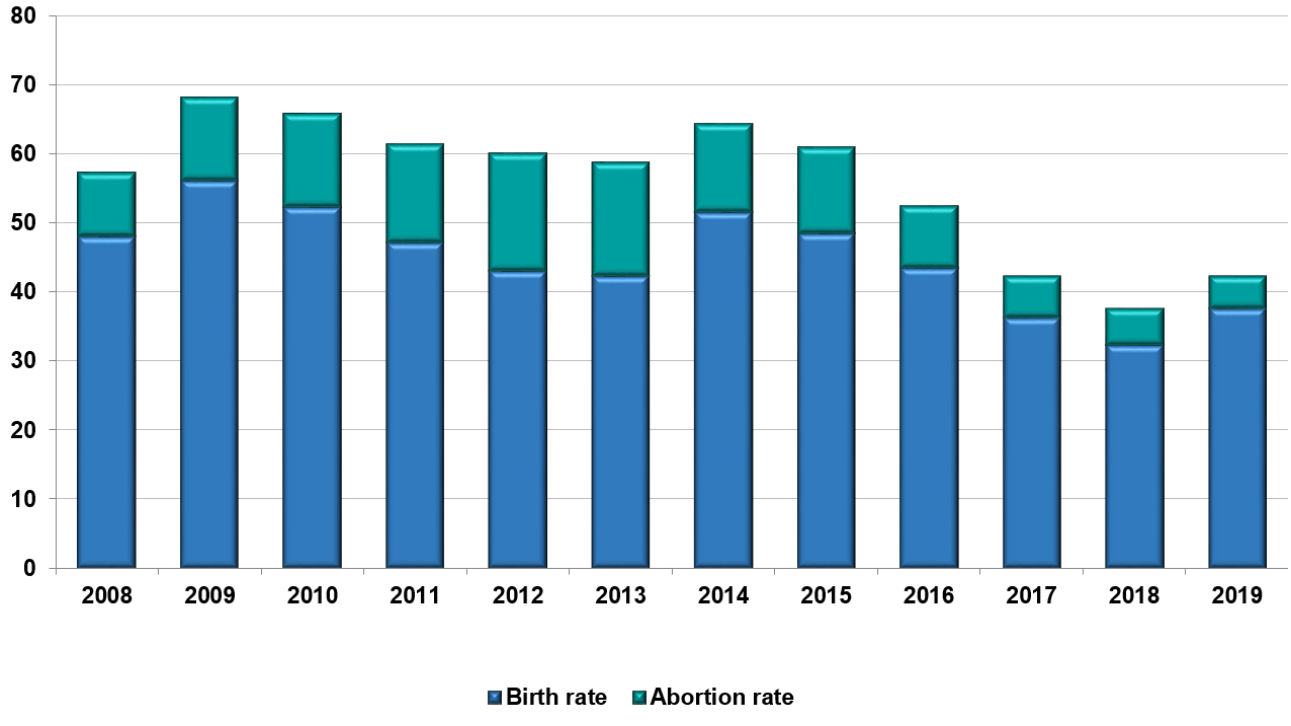
ADOLESCENT PREGNANCY AND DELIVERY

According to the SDG 3.7.2, by 2030 the birth rate per 1000 women aged 10-14 and 15-19 years should be reduced by 40% (in Georgia, in 2015, this indicator was 51.0%). In 2000, worldwide, adolescents birth rate was 56 per 1,000 women, by 2015, the rate decreased to 45 and in 2019 it reached 44 per 1,000 women.

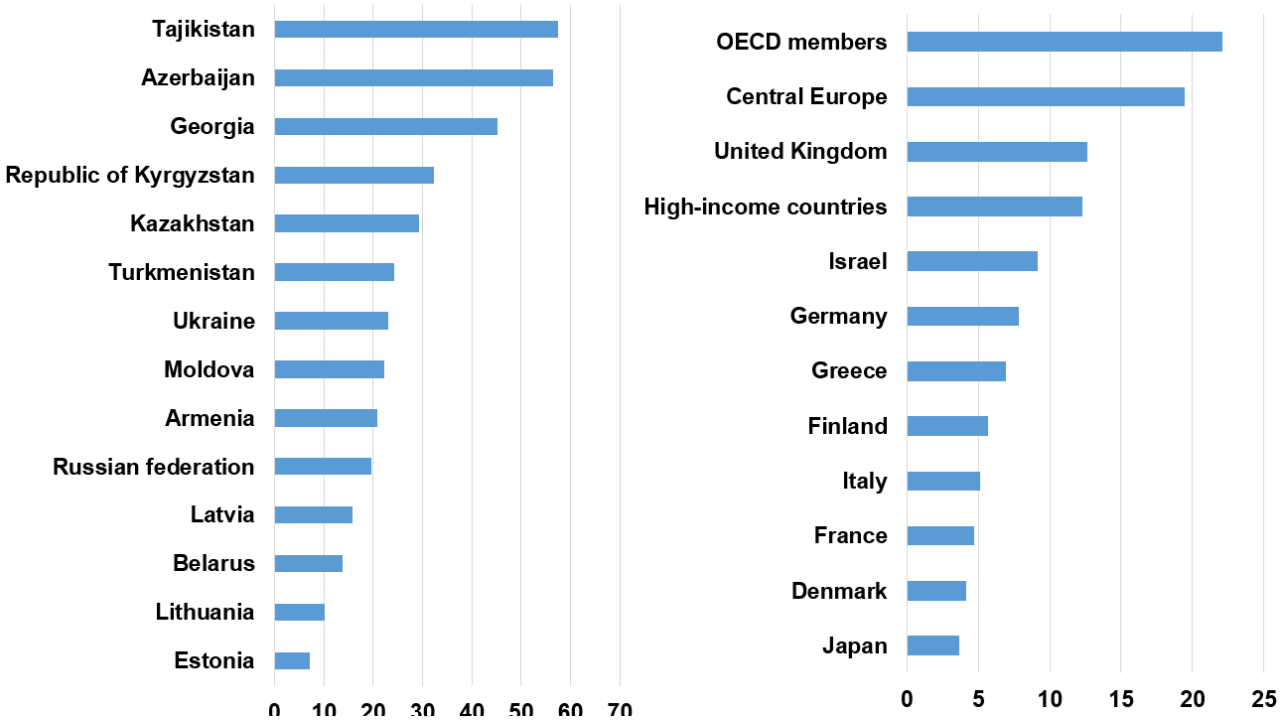
(https://sustainabledevelopment.un.org/sdg3).

Compared to the previous year, in 2019, the adolescent pregnancy rate (the sum of births and abortion rates per 1000 women aged 15-19) has increased due to the increased birth rate to women in this age group.

Adolescent (Women Aged 15-19) Pregnancy Rate Indicators, Georgia



Adolescent Birth Rate, Former Soviet Union and Some European Conutries, 2018

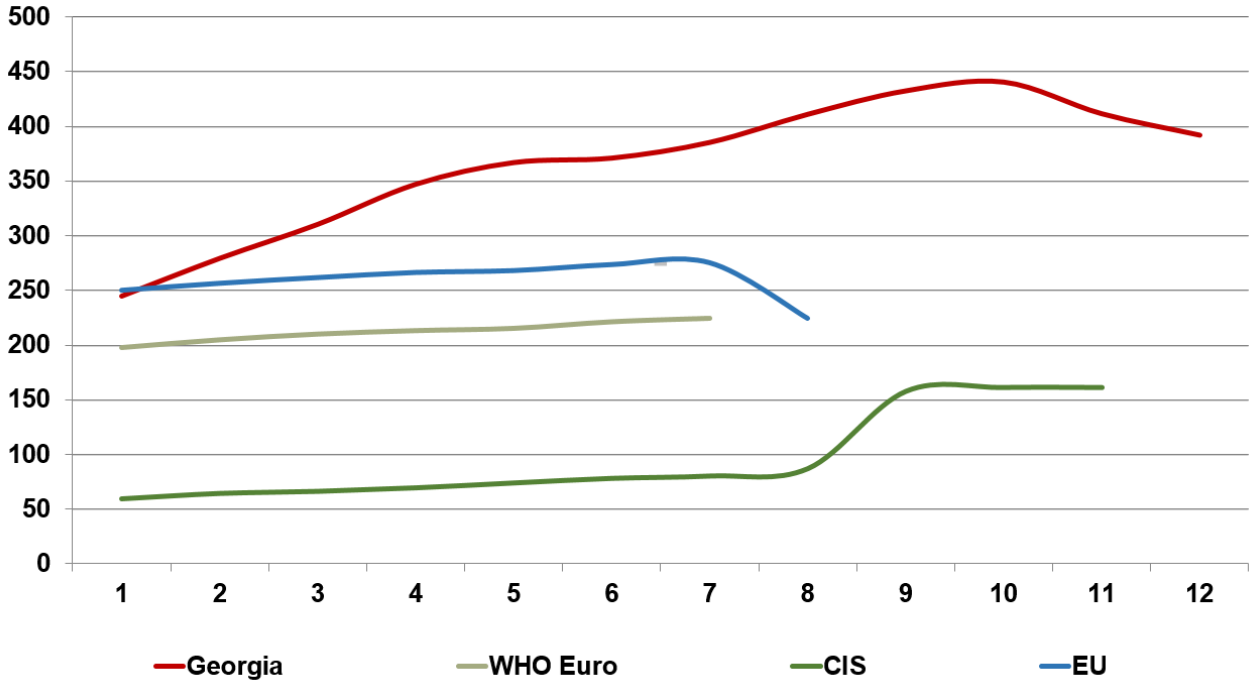


Source: https://data.worldbank.org/indicator/SP.ADO.TFRT?most_recent_year_desc=true

Caesarean section

In Georgia, compared to other countries, the share of births by caesarean sections is high. The rate of caesarean sections per 1000 live births is significantly higher than the same rates in the European region and the CIS.

Caesarean section ratio per 1000 live births (last available data)

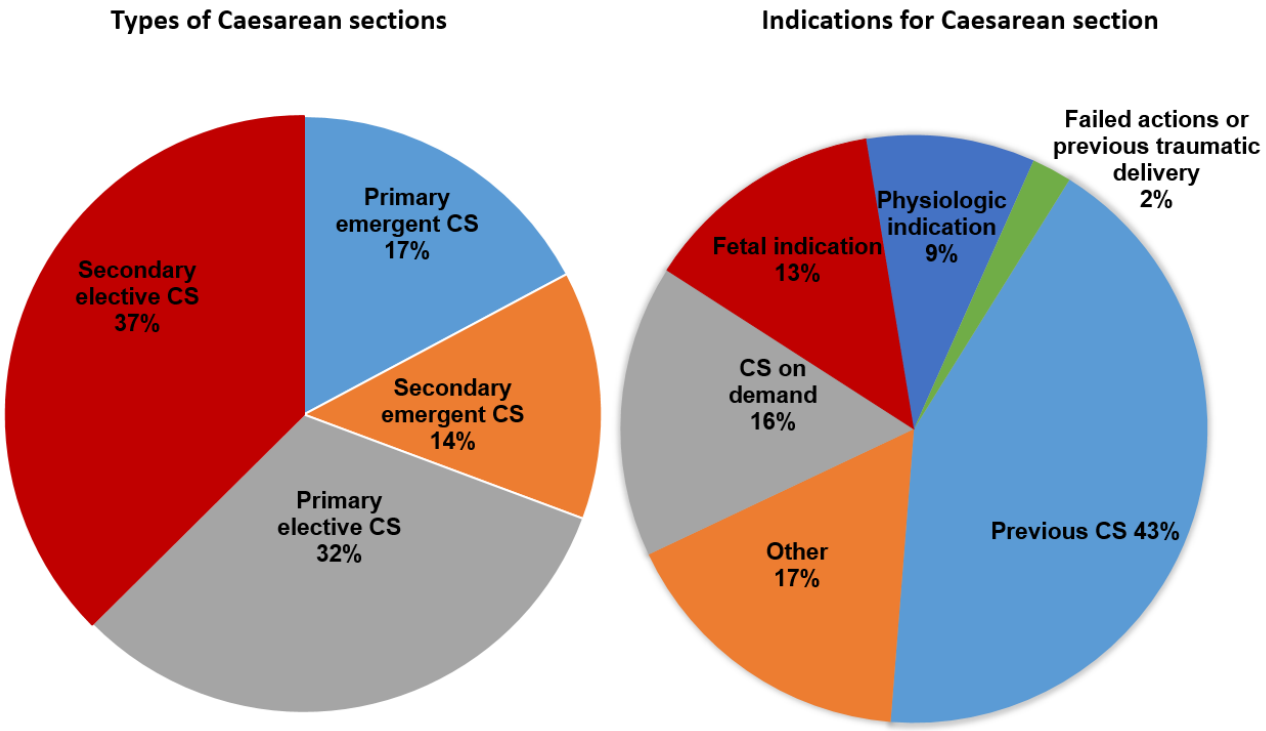


Source: WHO HFA Database, NCDC

Since 2016, as a result of regulations developed in the country, the decrease of caesarean sections ratio has been observed. This trend was caused by the Perinatal Health Regionalization Project launched by the Ministry of Health in 2015, under which since 2017, selective contracting with medical institutions has been carried out. According to the terms of the contract, specialized (level II) and subspecialized (level III) medical institutions, involved in the perinatal care, have a percentage limit for caesarean section, in case of exceeding this limit, they are a subject of the rules provided by the terms of the contract. In 2019, the share of caesarean section of the total number of deliveries has decreased, compared to previous years, and amounts to 39.8% of the total number of deliveries (in 2018 - 41.6%).

It is also important, that in 2019, 46% of the total number of the electiveCa caesarean sections is done at the request of the mother. The decline of share of caesarean sections is associated with a decrease of the emergent cases.

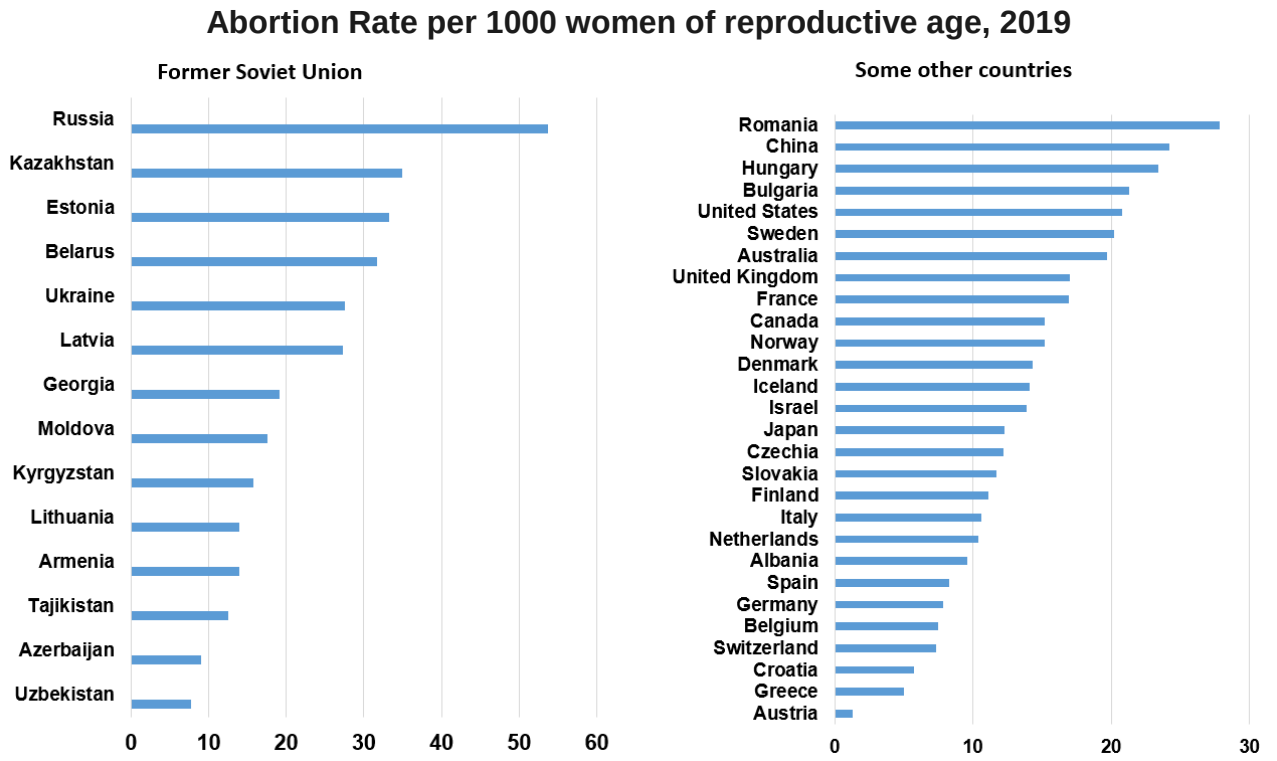
Caesarean section, Types and Indications, Georgia, 2019



Abortion

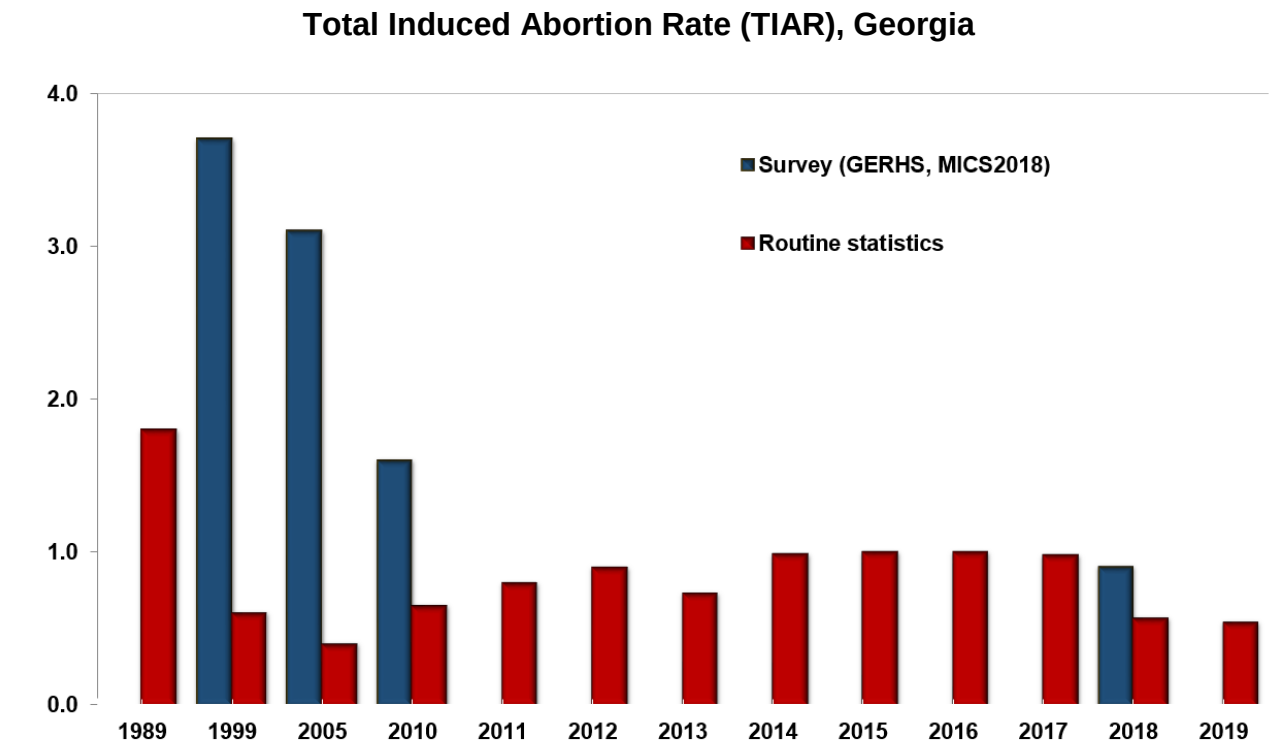
It is difficult to calculate the level of abortions worldwide, as in many countries abortions are not registered and, consequently, international reports are not submitted. This is especially true in countries, where abortion is prohibited by law. In 58 of the 193 countries of the United Nations, abortion is legalized and prohibited by law in only 7 countries.

Georgia, according to the abortions rate per 1000 women of reproductive age, occupies an intermediate position among the countries of the former Soviet Union and exceeds the rates of developed countries.



Source: https://worldpopulationreview.com/country-rankings/abortion-rates-by-country

In Georgia, the value of the total inducd abortions rate (TIAR) remained stable in 2014-2017, the decrease in 2018-2019 is likely due to the accounting problems. In 2018, a multiple indicator cluster survey (MICS) was conducted in Georgia, according to the MICS results, TIAR (0.9) is almost 2-folds higher than the official data (0.5).



In 2019, induced abortions accounted to 61.6% of all registered abortions (data from the Electronic Module for Pregnancy and Newborn Health Monitoring). According to the MICS survey, almost 41% of married women are currently using some form of contraception, however, the total induced abortion rate (TIAR) during the last five years is 130.3 per

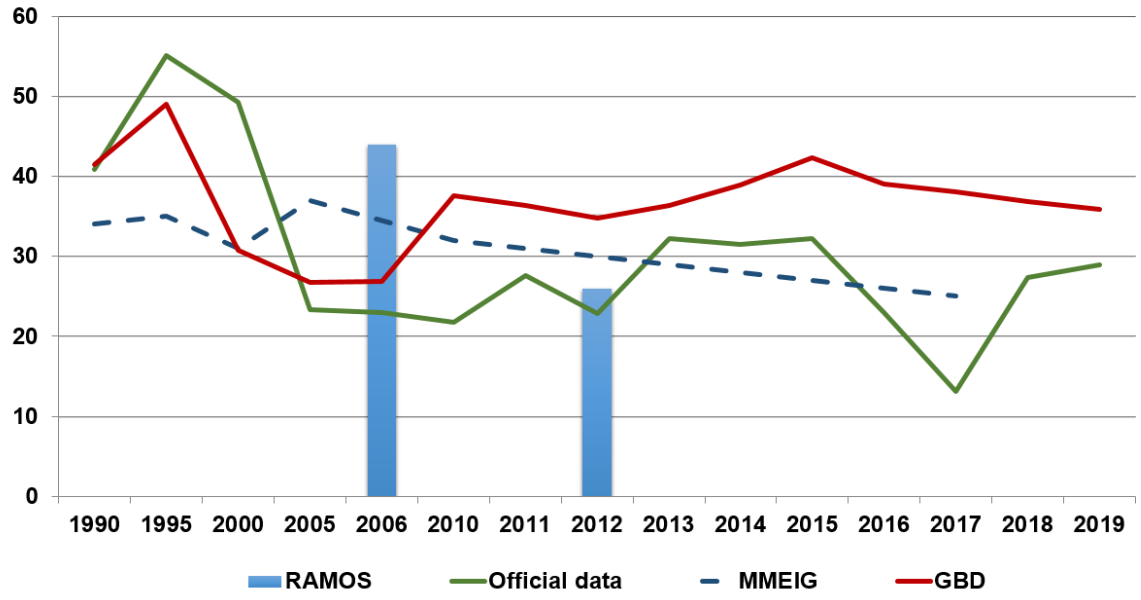
1,000 women of reproductive age, and the total induced abortion rate (TIAR) during the lifetime is 909.4.

Maternal Mortality (SDG 3.1)

The United Nations Sustainable Development Goals aim on improvement of maternal health and well-being by 2030. According to the SDG3.1 the target maternal mortality rate is less than 70 per 100,000 live births. According to international estimates, in Georgia, by 2030t, he maternal mortality rate is expected to reach 28.8 (19.0-43.0) deaths per 100,000 live births (https://maternalhealthatlas.org/).

In 2019, in Georgia, there were registered 14 cases of maternal deaths (maternal mortality rate per 100,000 live births - 28.9).

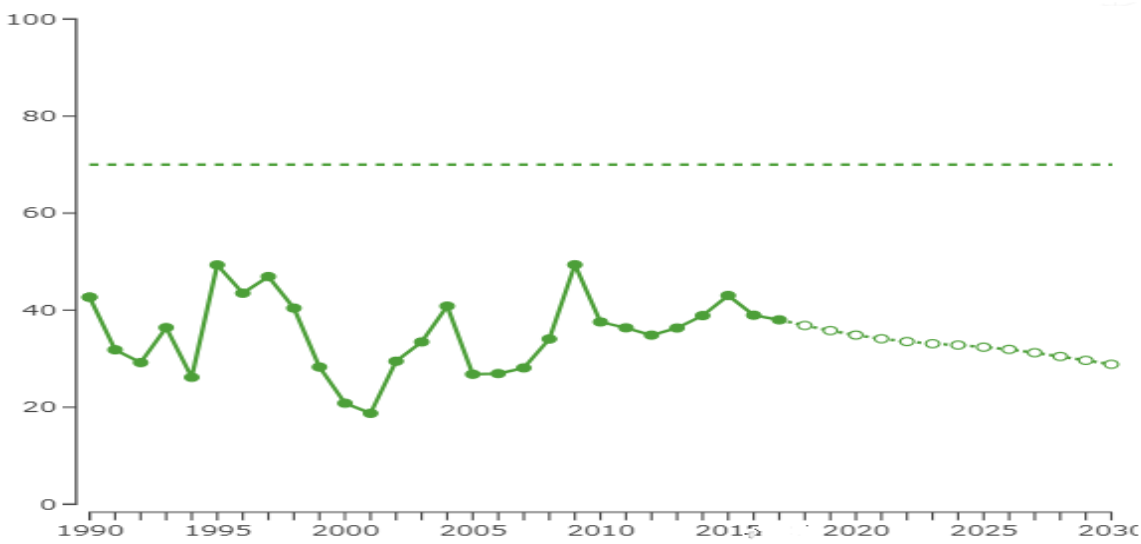
Maternal Mortality Rate per 100000 live births, Georgia



Source: National Center for Disease Control, Geostat

In Georgia, according to the assessment of the Institute of Health Metrics and Evaluation of the University of Washington, the decrease of maternal mortality will continue.

Maternal mortality, Georgia
(Deaths of women aged 10-54 per 100,000 live births)



Source: https://www.thelancet.com/lancet/visualisations/gbd-SDGs

Morbidity and Mortality of Children Aged Under-5

Respiratory and infectious diseases are the leading causes of morbidity in children under-5 years of age.

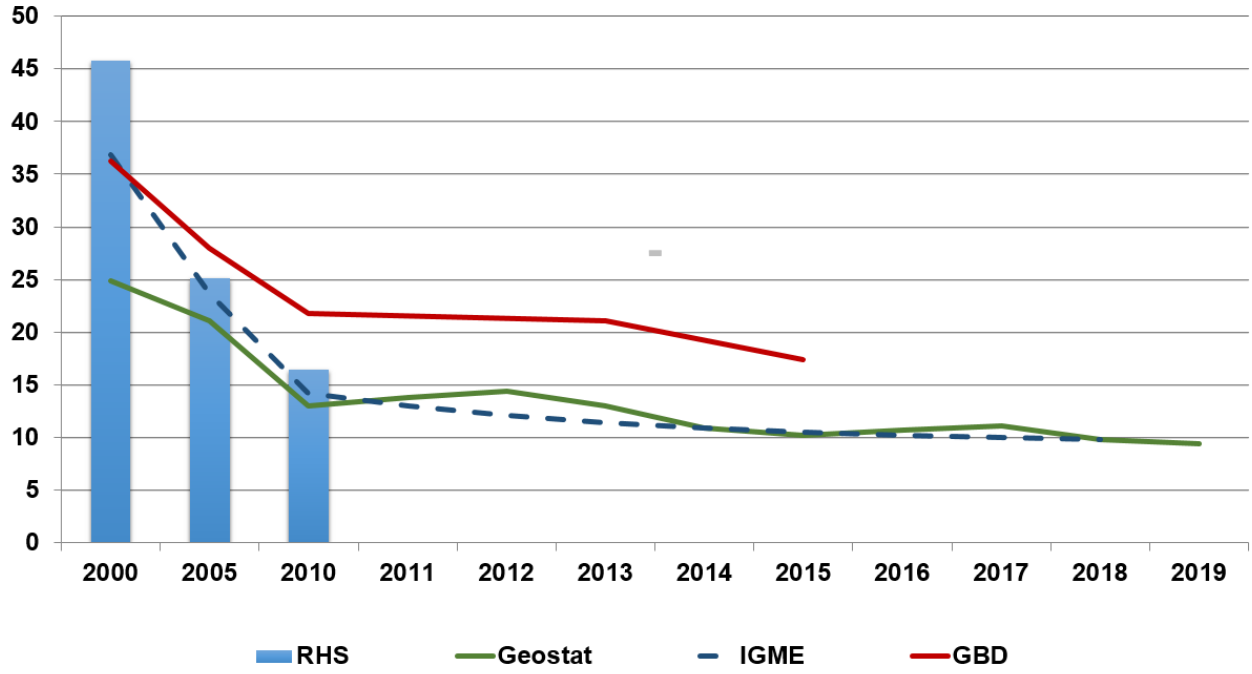
Leading Causes of Morbidity in Children Under-5, Georgia

Cause of morbidity	Incidence per 1000 children aged under-5	
	2018	2019
Diseases of the respiratory system	606.0	524.9
Diseases of the ear and mastoid process	57.8	35.7
Infectious and parasitic diseases	94.3	83.3
Diseases of the eye and adnexa	44.2	25.9
Diseases of the skin and subcutaneous tissue	28.3	28.5
Injury, poisoning and other consequences of exposure of external causes	25.7	24.9
Diseases of the digestive system	15.9	19.4
Diseases of the blood and bloodforming organs	15.0	13.4
Diseases of the nervous system	14.5	14.0

During last decades a significant reduction of under-5 mortality was registered worldwide.

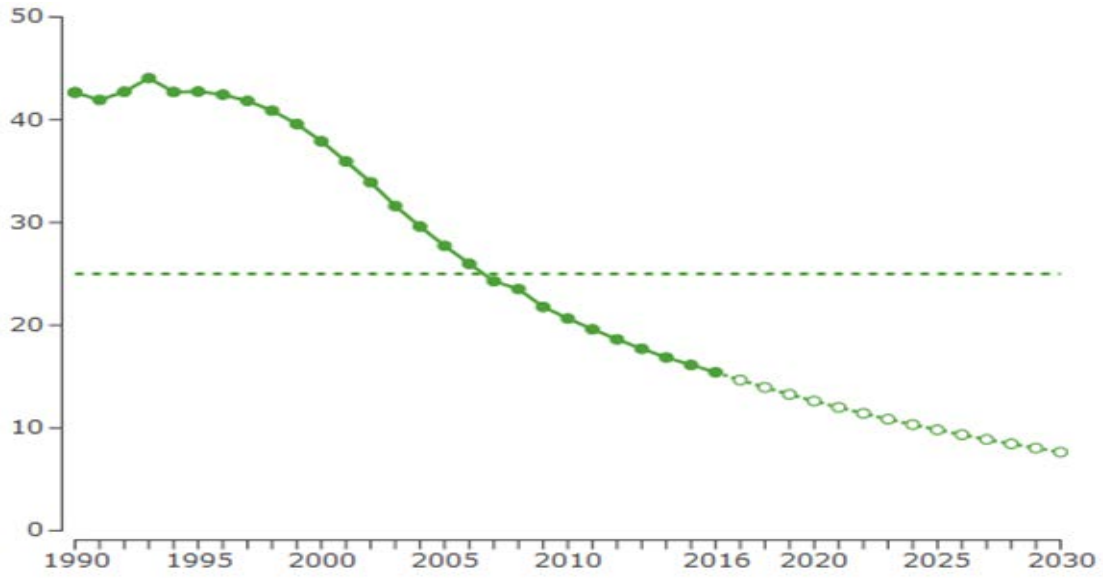
In Georgia, the under-5 mortality rate has successfully reached the Millennium Development Goal and, according to official statistics and international experts' estimates (UN Inter-Agency Child Mortality Assessment Group - IGME) and forecasts, maintains a declining trend.

Under-5 Mortality according to Different Sources, Georgia



Source: National Center for Disease Control, Geostat

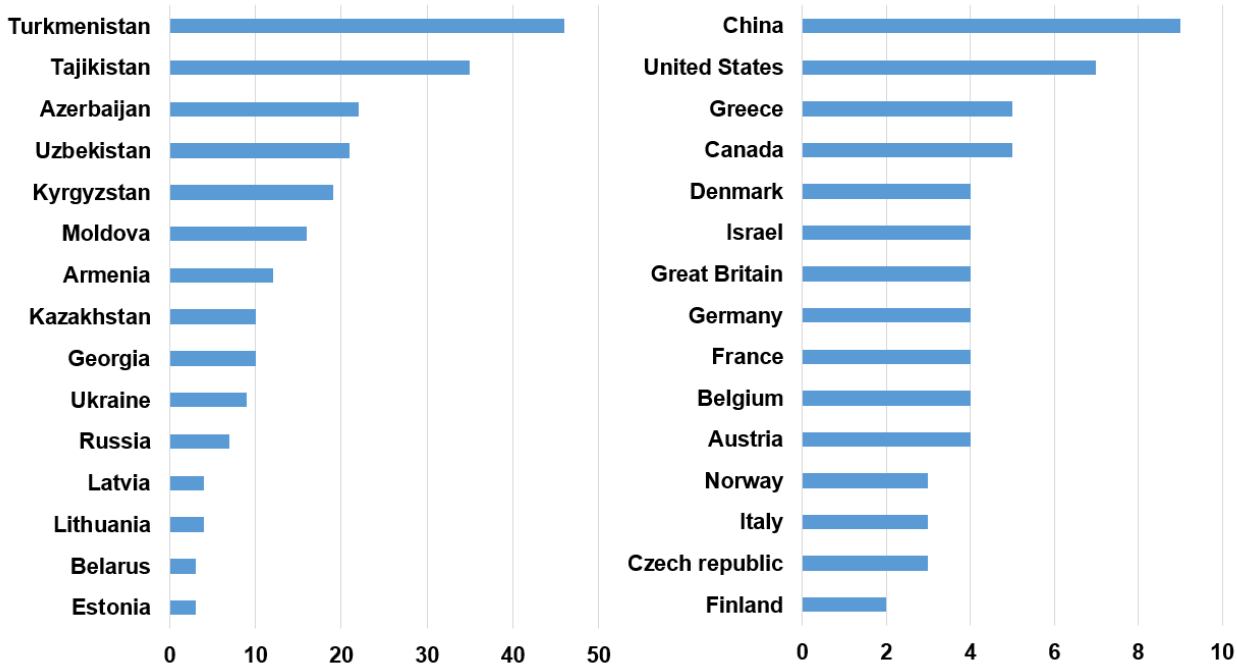
Under-5 Mortality, Georgia



Source: http://www.thelancet.com/lancet/visualisations/gbd-SDGs

In Georgia, according to the latest available data from the World Health Organization, the mortality rate of children aged under-5 years, despite the declining trend, exceeds the rates of European countries, and occupies an intermediate position among the countries of the former Soviet Union.

Under-5 Mortality, 2018



Source: https://data.worldbank.org/indicator/SH.DYN.MORT

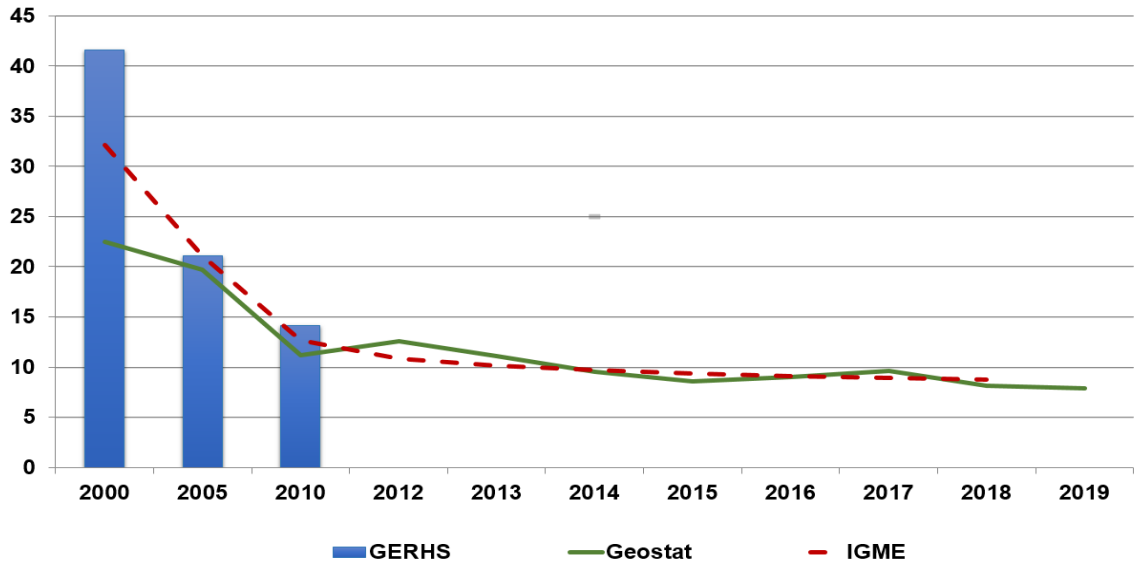
According to the UN Sustainable Development Goals, Georgia has to reduce the under-5 mortality upto 6 per 1000 live births.

Sustainable Development Goals and Georgian Data

Indicator	Goal to reach by 2030	2019 Data	IGME's estimate
SDG 3.2.1: under-5 mortality rate	6 / 1000 LB	9.4	9.8
SDG 3.2.2: neonatal death rate	5 / 1000 LB	5.2	5.9

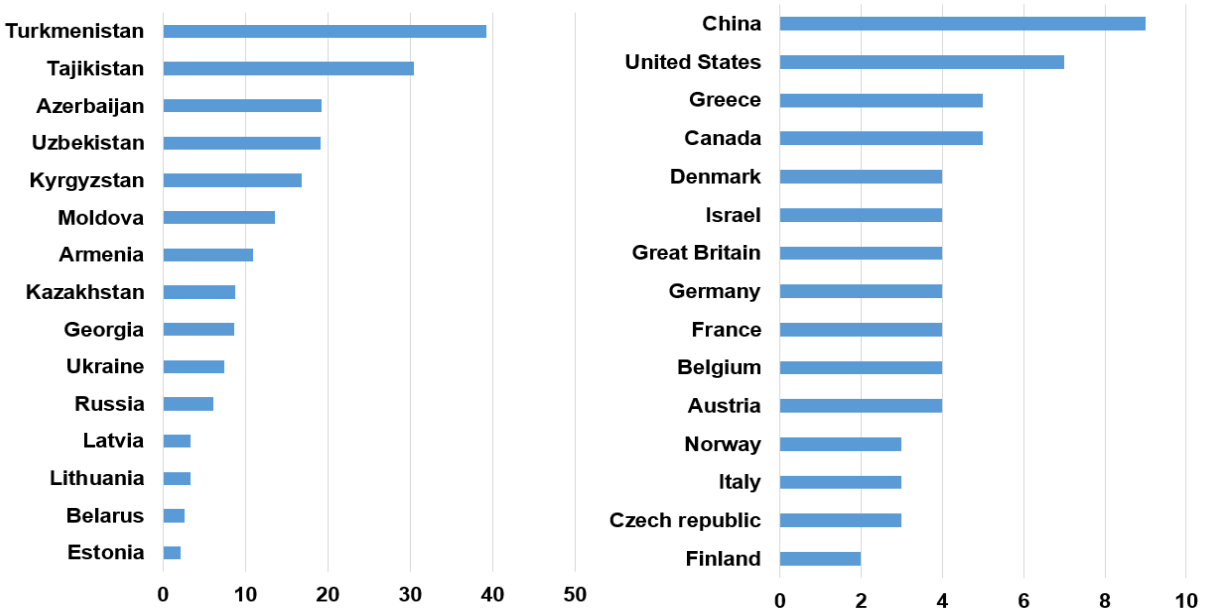
The largest share of ithe under-5 mortality falls on infant mortality.

Infant Mortality, Georgia



Source: National Center for Disease Control, Geostat

Infant Mortality, 2018



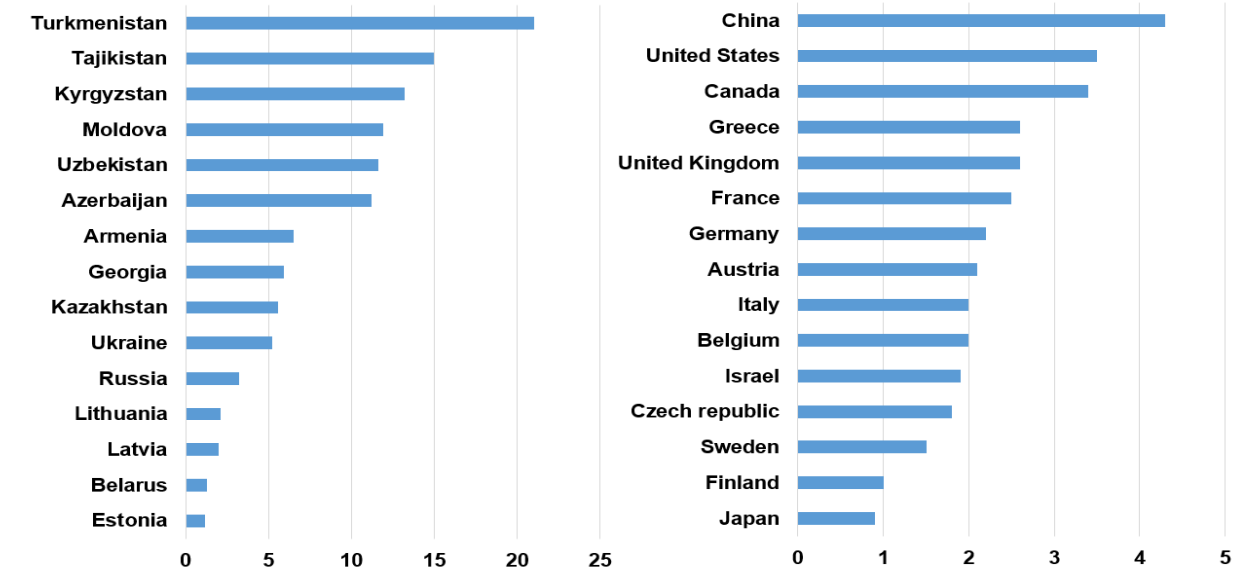
Source: https://data.worldbank.org/indicator/SP.DYN.IMRT.IN

A large portion of infant and under-5 mortality falls on neonatal mortality.

Perinatal and Neonatal Mortality, Georgia

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Stillbirth rate per 1000 births	10.9	9.5	11.2	9.4	10.5	9.8	9.8	9.4	8.5	9.4
Early neonatal death rate per 1000 live births	6.6	6.1	6.6	6.7	3.4	3.6	4.1	4.5	3.2	2.8
Late neonatal death rate per 1000 live births	3.0	2.4	2.7	1.7	2.3	2.5	2.2	2.3	1.7	2.4
Perinatal mortality rate per 1000 births	17.4	15.6	17.7	16.1	13.8	13.4	13.8	13.8	11.7	12.1

Neonatal Mortality, 2018



https://databank.worldbank.org/reports.aspx?source=2&series=SH.DYN.NMRT

Health Care

In 2019, the increase of the number of physicians continued, therefore, the density of physicians also increased. The same time there was a substantial increase of the number of nurses and the density of nurses.

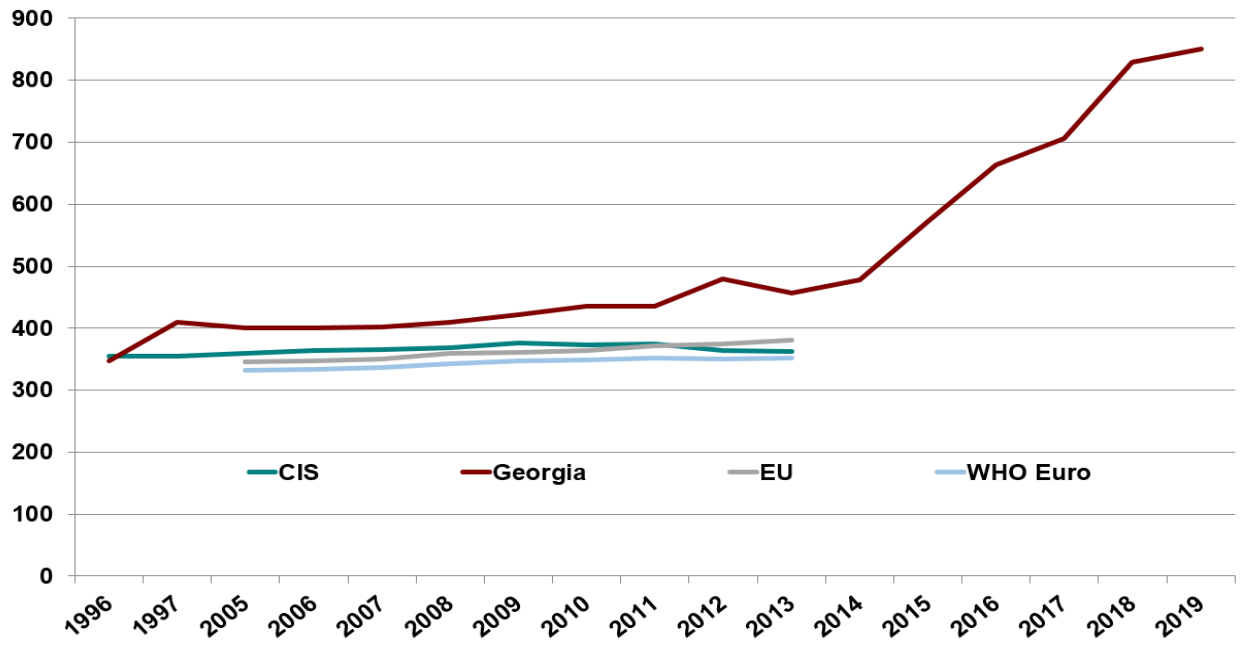
Healthcare Resources

Healthcare Resouces, Georgia

	2017	2018	2019
Number of physicians (including dentists)	27362	30998	31746
Physicians density per 100000 population	733.9	831.9	853.3
Number of nursing personne;	19376	17862	19613
Nursing personnel density per 100000 population	522.4	479.3	527.2
Number of hospital beds	15084	15909	17471
Number of hospital beds per 100000 population	404.6	426.9	469.6
Encounters with physicians	12906763	12067282	13469592
Home visits of physicians	239103	190544	181889
In-patient facilities	280	273	266
Out-patient facilities	2369	2283	2280
Antenatal care centers	344	352	291
Ambulance stations	82	73	71
Blood transfusion facilities	21	9	11
Rural physician-entrepreneurs	1277	1267	1269

The World Health Organization assigns particular importance to the availability of the adequate health human resources in the country. Since 2006, Georgia has seen an increase of the number of doctors; Georgia's human resources density indicators are significantly higher than those of the European region, the European Union and the CIS countries.

Physicians Density per 100000 Population

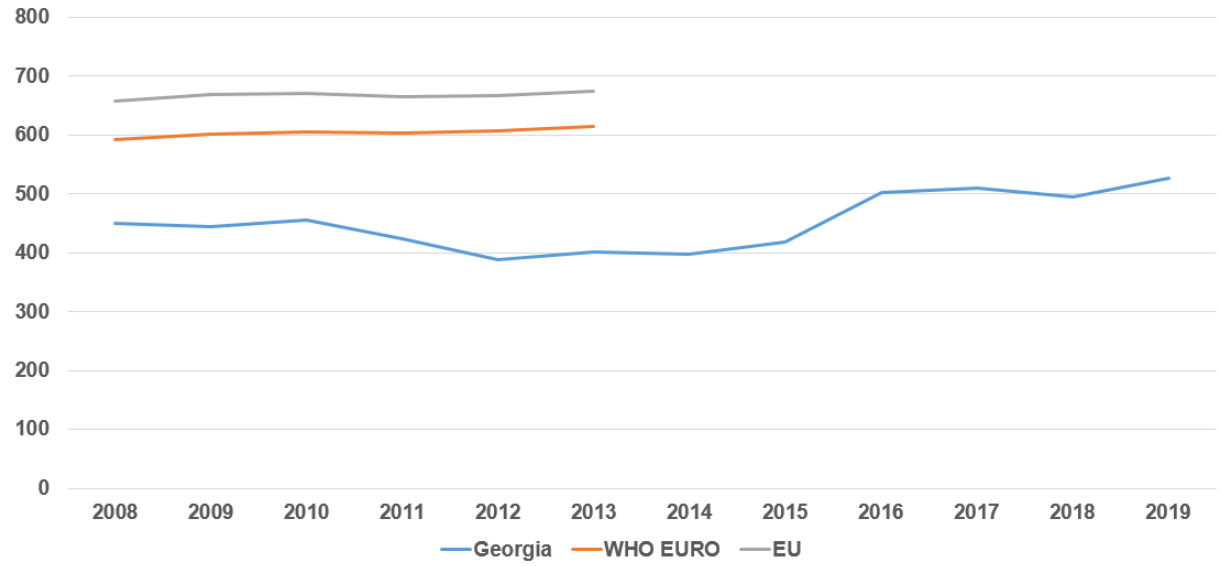


Source: WHO HFA Database; NCDC

According to WHO recommendations, 4 and more nurses per physician are the most effective, in terms of the quality of provided healthcare. In the European region and EU countries, the average number of nurses per physician is 2-2.7, and an increase of this number is considered a positive trend.

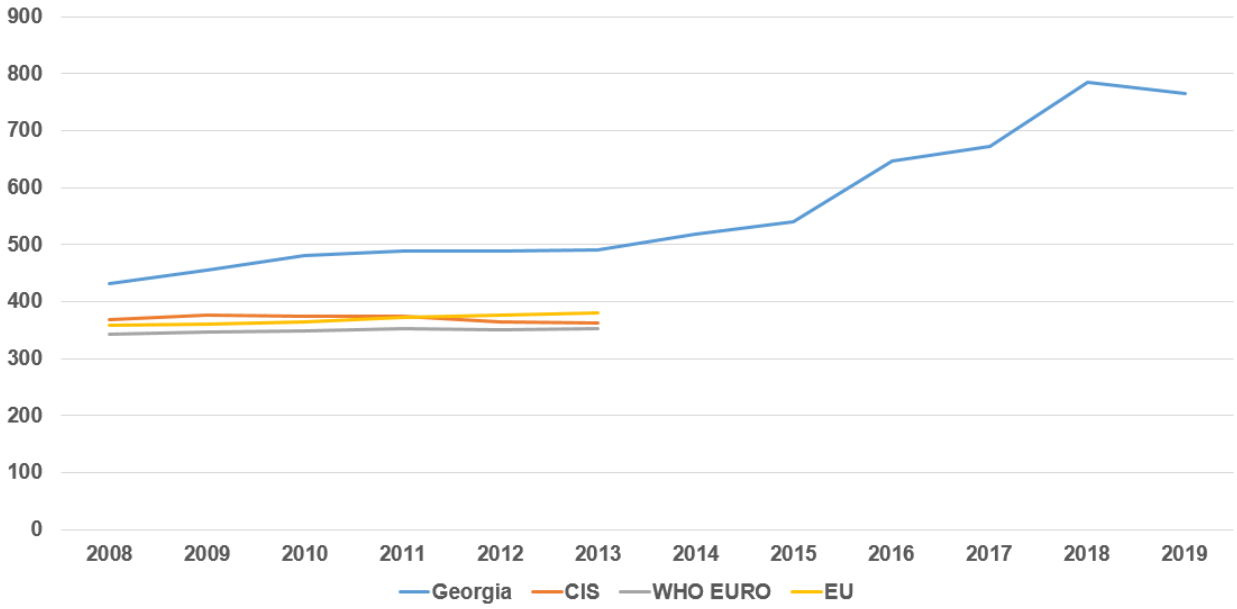
In Georgia, density of nurses is almost the lowest, compared to the European region and CIS countries and maintains a declining trend.

Professionally Active Nurses Density per 100000 Population



Source: WHO HFA Database, NCDC

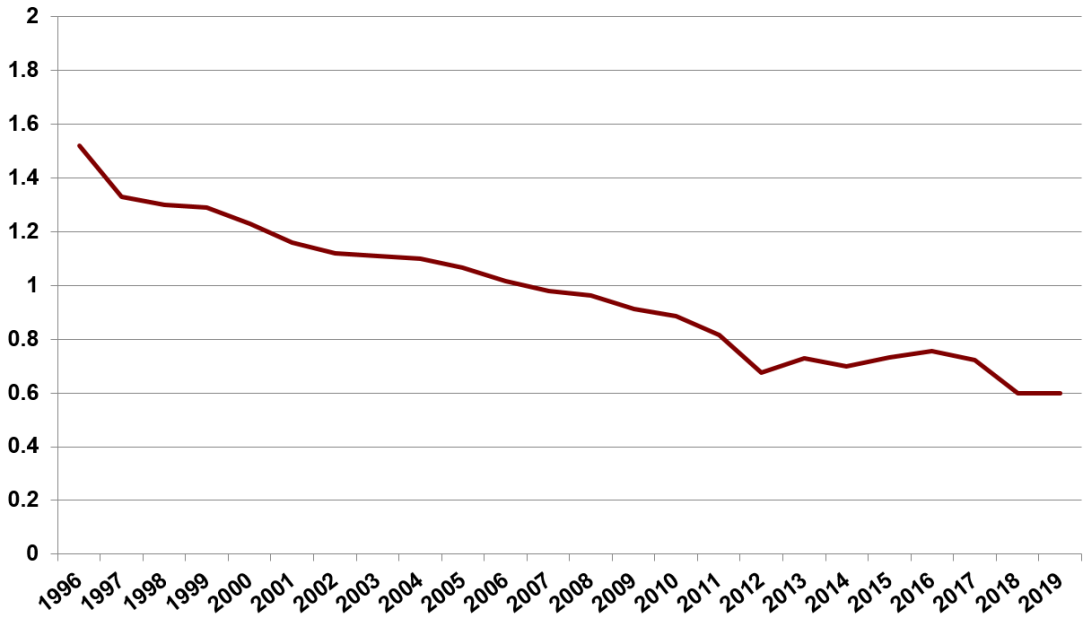
Professionally Active Physicians Density per 100000 Population



Source: WHO HFA Database, NCDC

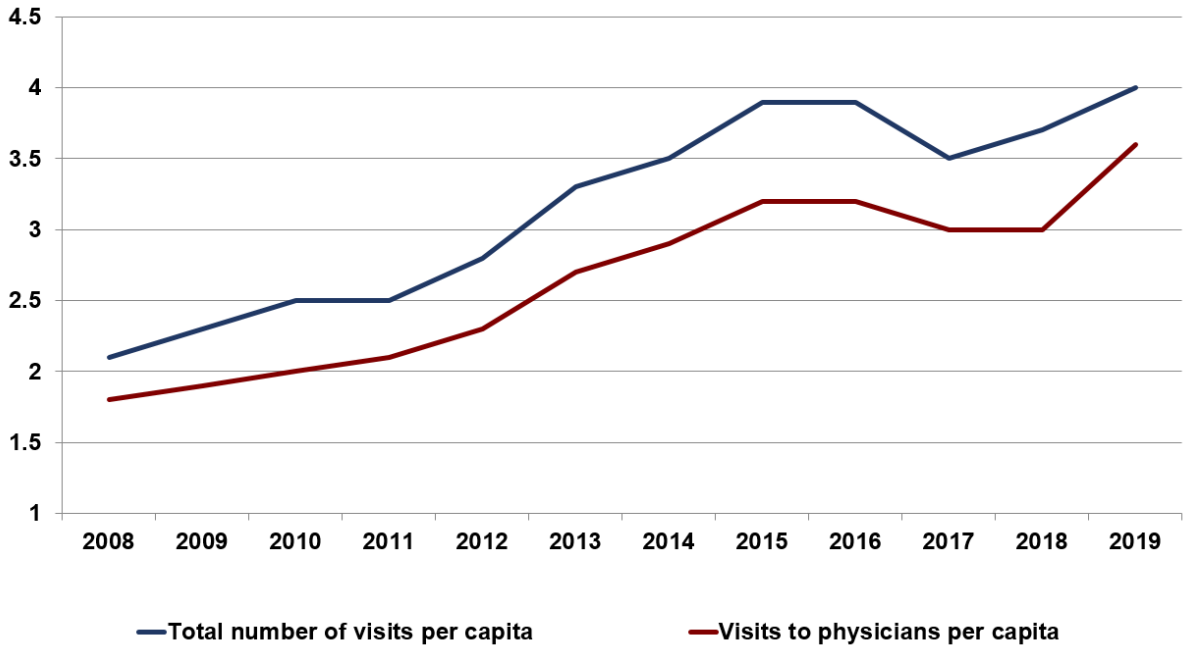
Since 2007, the ratio of the number of nurses to the number of physicians has been less than 1 and recent years has a declining trend.

Ratio of the Number of Nurses to the Number of Physicians



In 2019, in Georgia, 14,928,350 visits to the primary healthcare were registered. According to the latest available data from the World Health Organization, the average number of visits to outpatient services per capita for countries of the European region is about 6. In Georgia, the value of this indicator during last two decades did not exceed 2.2. After the launch of the state program of universal healthcare, the number of contacts with both outpatient and inpatient facilities has increased. In 2019, the number of visits to outpatient services and ambulance services equaled 4 per capita.

The Number of Visits per Capita, Georgia



In 2019, there were 502,756 cases of hospitalization registered, this is 8% more than the number of hospitalizations in 2018.

Hospital Beds and Indicators of Bed Use, Georgia

	Number of hospital beds	Number of beds per 100000 population	Bed occupancy rate	Average length of stay	Bed rotation
2008	14069	365.6	156.1	3.0	26.2
2009	13633	357.4	148.2	6.3	23.4
2010	13378	353.3	160.0	6.4	25.2
2011	12599	335.4	173.6	7.0	24.8
2012	11348	304.3	228.9	7.0	32.7
2013	11600	312.0	181.4	5.4	33.6
2014	11675	313.9	188.3	5.2	36.3
2015	12830	344.4	193.3	5.3	36.4
2016	13840	371.3	189.3	5.0	37.8
2017	15084	404.6	180.5	5.2	35.0
2018	15909	426.9	187.2	4.9	37.8
2019	**17471**	**469.6**	**179.5**	**4.9**	**36.5**

21.7% of hospitalizations were related to respiratory diseases, 18.8% to the circulatory system diseases, and 9.5% to pregnancy, childbirth, and puerperium. Hospital case fatality rate did not change, compared to previous years, and equaled to 2.5%.

In-patient Care, Georgia, 2019

(Top 10 Classes)

	Number of hospital discharges	Including deaths	Case fatality rate, %
Total	**545216**	**13606**	**2.5**
Diseases of the respiratory system	118553	4098	3.5
Diseases of the circulatory system	102515	4159	4.1
Pregnancy, childbirth and the puerperium	52294	5	0.0
Diseases of the digestive system	44179	1015	2.3
Injury, poisoning and certain other consequences of external causes	37609	440	1.2
Injury, poisoning and certain other consequences of external causes	34210	308	0.9
Diseases of the genitourinary system	26452	330	1.2
Diseases of the nervous system	25474	288	1.1
Neoplasms	23723	1191	5.0
Mental and behavioural disorders	11402	174	1.5

In 2019, in Georgian hospitals, there were 289,288 surgical operations performed (in 2018 - 221,849), the rate per 1000 population - 77.8 (in 2018 - 59.5).

In-patient surgeries, Georgia, 2019

Surgery according to the anatomical localization	Number of surgeries
Total	**289288**
Including:	
Nervous system	7762
Brain	1486
Spinal cord	824
Peripheral nervous system	677
Endocrine System	3223
Thyroid gland	3044
Parathyroidectomy	17
The eye and adnexa	46936
Due to glaucoma	2117
Due to cataract	27621
Ear, nose and throat	17901
Ear	165
Teeth, jaws, mouth and throat	20760
Tongue	260
Main blood vessels of the heart and chest	21406
Tricuspid valve	65
Shunting of coronary arteries	2535
Stenting	9477
Chest wall, pleura, mediastinum, diaphragm, trachea, bronchi and lungs	3032
Mammary gland	3676
Digestive system	51126
The genitourinary system, male genitals, and the retroperitoneal space	16171
Kidney transplantation	1
Prostate	1963
Female genitals	20502
Obstetric procedures	24008
Musculoskeletal system	28871
Peripheral blood vessels and lymphatic system	13614
Skin	10253
Collection of organs and tissues for transplantation	45

Ambulance

The ambulance system provides free ambulance services to the population of the country. In 2019, 1526434 visits were made by the ambulance, this is (as in 2018) 0.4 visits per capita.

Blood banks

In 2019, the total number of blood donations in all licensed blood banks (22 blood banks) was 82048, of this number 27,022 (32.9%) donations were free.

Immunization

From the point of view of the Government of Georgia, immunization is a leading priority of public health, which is clearly confirmed by the significant increase in funding of the program: in 2012 4 million GEL were allocated to the immunization program, in 2018 - 22400 million GEL, in 2019 - 22800 million GEL.

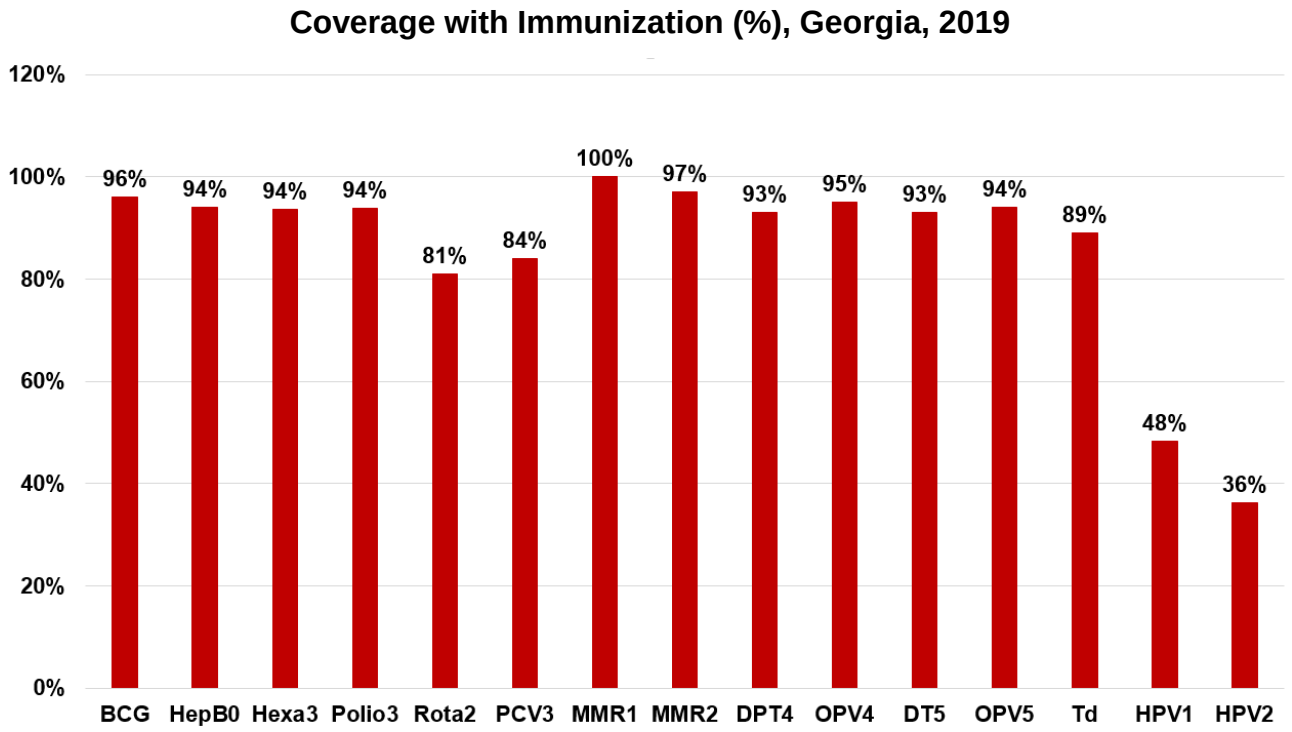
According to the national calendar, vaccinations against the following 13 infectious diseases are conducted in the country: tuberculosis, hepatitis B, diphtheria, pertussis, tetanus, polio, measles, mumps, rubella, Hib (Haemophilus influenzae), Rota virus, pneumococcal infection, and human papiloviral infection.

Immunization Calendar, Georgia

Vaccine	Number of doses	Age at vaccination
BCG	1	Newborn 0-5 days
Hepatitis B	1	Newborn 0-12 hours
Hib+DPaT+HepB+IPV	3	2, 3, 4 months
bOPV	2	18 months, 5 years
DPT	3	18 months
DT		5 years
Td		14 years
MMR	2	12 months, 5 years
Rota	2	2, 3 months
PCV	3	2, 4, 12 months
HPV	2	10-11-12 years cohort

Last years 5 new vaccines have been added to the immunization calendar: in 2013 - Rota virus vaccine, in 2014 - PCV10 (with GAVI support), in 2015 - IPV (Penta vaccine replaced by Hexavalent vaccine), in 2016 - Bivalent polio vaccine (bOPV). In 2017, HPV vaccination was launched in 4 regions of Georgia (Tbilisi, Kutaisi, Adjara, Abkhazia), with the aim of including 9-years-old girls in the demo program. Since September 2019, human papillomavirus vaccination (APV) has been introduced throughout Georgia for girls aged 10, 11 and 12 years.

All vaccines, included in the national calendar of vaccinations, are free of charge for the population. To ensure high quality and safe immunization, the Government purchases only pre-qualified by the World Health Organization vaccines.



The country maintains high coverage rates for most antigens, however, the annual target coverage rate of 95% for some vaccines has not been reached yet.

Since 2002, Georgia has been certified as a wild polio virus-free country.

Infectious diseases

In 2019, in Georgia, a decrease of incidence of infectious and parasitic diseases is registered in the entire population,and in children.

COVID-19

Coronavirus 2, called COVID-19, which originated from Wuhan, Hubei Province of China, in December 2019, is the third zoonotic coronavirus outbreak of the 21st century, when the infection was transmitted from person to person and caused a health problem.

In Georgia, testing, using PCR, to detect COVID-19 started on January 30, 2020. From January 30 to August 13, the number of tests, conducted in the country, was 288,814, of which 283,789 were primary tests.
According to the target groups, the most part of the PCR tests (28%) were conducted among the beneficiaries of fever (covid) clinics and quarantine areas. The share of tests among healthcare providers (excluding ambulance staff) was 26%.

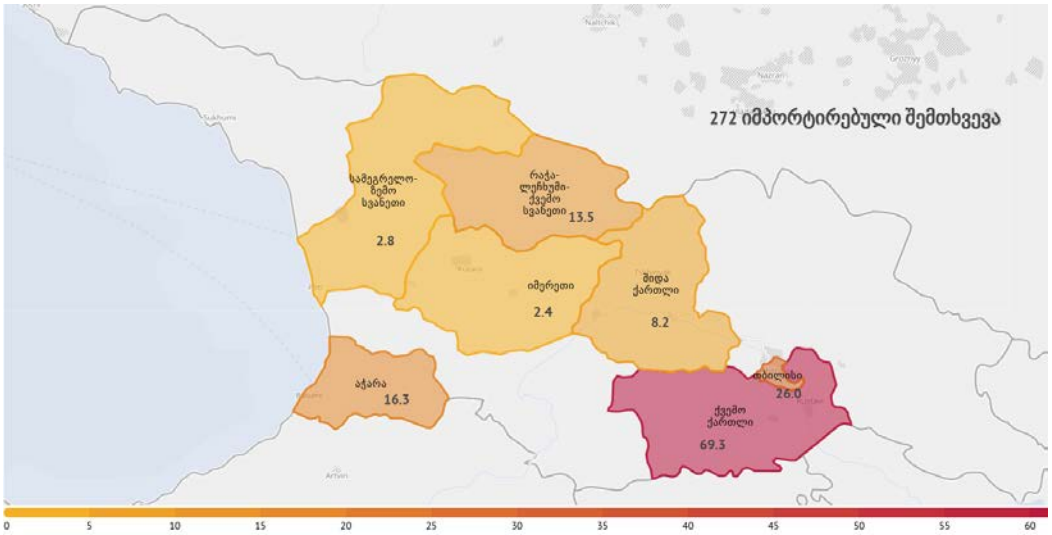
In Georgia, the first confirmed case was registered on February 26. According to July 11 data, COVID-19 was confirmed in 980 people, of which 499 (50.9%) were males and 481 (49%) - females. The positivity result rate is 0.7% (for May 11 - 2%, June 11 - 1.2%).

The eldest patient was 90 years of age and the youngest was 9 months.

By July 11, the cumulative incidence rate of COVID-19 was 19.0 per 100,000 population (95% CI 17.7-20.5).

The highest numbers of new cases of COVID-19 per 100,000 population are in Kvemo Kartli and Tbilisi, and the lowest - in Samegrelo-Zemo-Svaneti and Imereti.

Cumulative incidence of COVID-19 per 100 000 population by the place of exposition (n=708)



272 cases (27.7%) out of 980 cases were imported. Of these, the largest share imported from Russia - 46.6% (127 cases), Turkey - 8.4% (23 cases), Azerbaijan - 8% (22 cases) and Armenia - 7.7% (21 cases).

Among other epidemiological characteristics of COVID-19 in Georgia, it should be noted that the period of doubling of cases from the first case till July 11 the average length is 16 days, and the effective reproduction index R_t was 0.93 (95% CI 0.46-1.65). The index is also shown in a report produced by the Washington Institute for Health Metrics and Evaluation, according to which the reproduction index is also in the range of 0.8-0.9[1].

In Georgia by July 11, 2020, 129 cases of COVID-19 infection were registered in healthcare providers, this is 13.2% of the total number of registered cases (980 confirmed cases). This number includes 111 (86.1%) cases of health staff and 18 (13.9%) cases of technical staff. The number of infected health personnel participating in the provision of health services in Georgia was defined as 110, this is 11.2% of the total number of Covid cases in the country. More than a half of such cases are registered in nurses.

The first patient with COVID-19 was hospitalized on February 26, 2020, the first recovered patient was discharged from the clinic on March 16. By July 11, the total number of recovered patients was 851 (87%). The number of patients discharged was almost equally distributed by sex: 49.4% males and 50.6% females. The average length of stay spent by discharged patients was 21 days.

Among COVID-19 infected people, there are 15 cases fatal cases (case fatality rate - 1.5%).

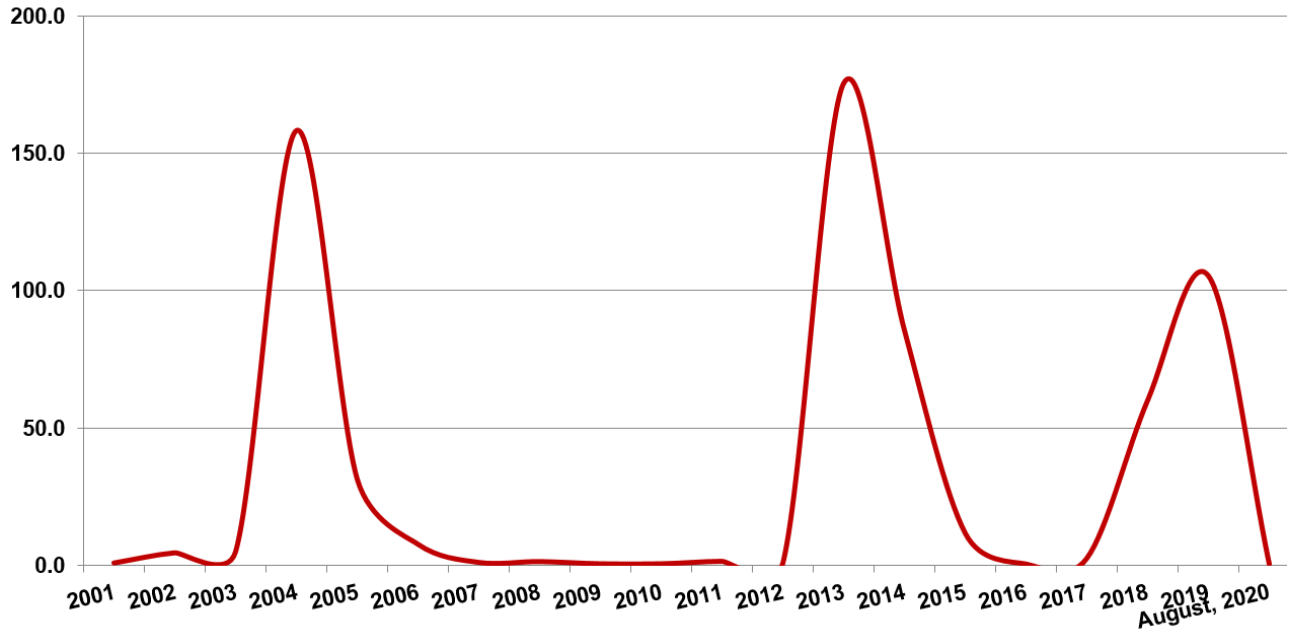
[1] *http://www.healthdata.org/*

Measles

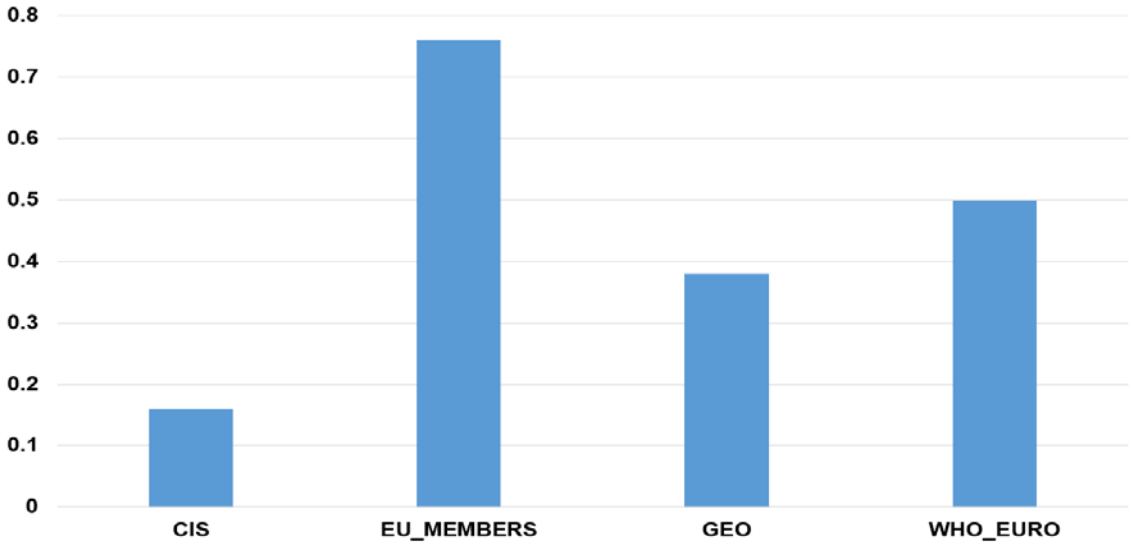
Measles in Georgia is a subject of mandatory registration and epidemiological surveillance. In 2004 and 2013, there was a significant increase of measles cases in the country. The peak of 2013 was caused by a failure of the mass immunization campaign in 2008. This contributed to the accumulation of the non-immune layer of the population, which led to an epidemic increase of measles. The burden of morbidity was mainly observed in the population under-1 year of age and 15-30 years of age.

Since 2013, additional campaigns measures have been implemented to manage the epidemic: to provide the measles vaccination course to children under-14 years of age and to provide additional vaccinations to the population aged 15-30, health workers and other specific groups of the population. In 2013-2015, approximately 150,000 citizens received additional doses of the measles-mumps-rubella vaccine. As a result, the number of measles cases in the country has dropped significantly. In early 2019, as in the most European countries, a measles outbreak started, and was successfully managed, additional immunizations of 170,000 people were conducted, especially at the age group of 20-40 years. In 2019, 3,918 cases of measles were reported.

Measles, Incidence Rate per 100 000 Population, Georgia



Measles Incidence per 100 000 Population, Last Available Data



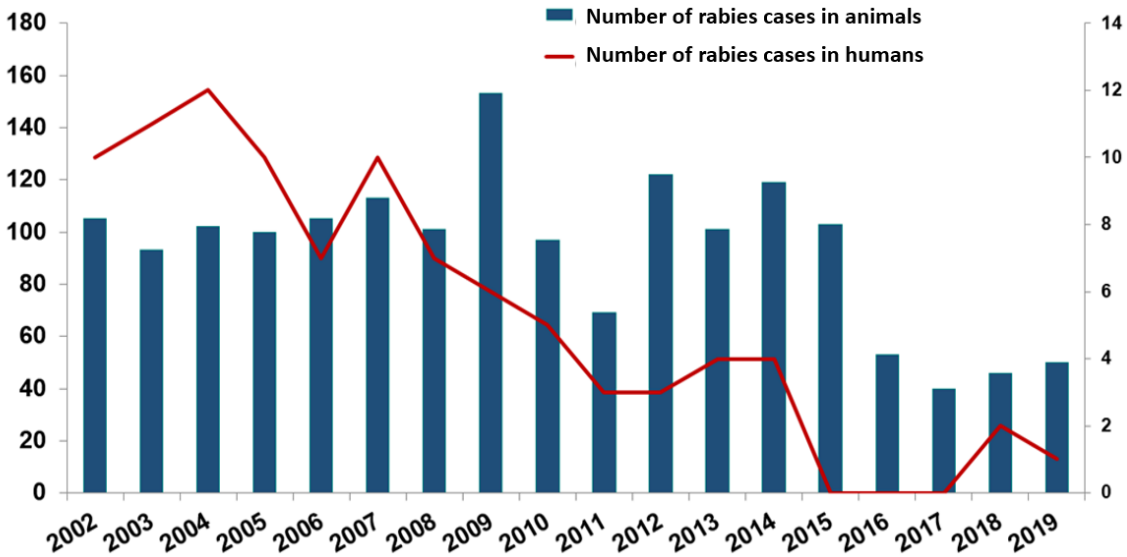
Source: HFA data base

Rabies

In Georgia, in 1997-2006, 96 cases of rabies were registered, and during next ten years - 42. The largest number of rabies in humans (21 cases) was registered in 1996. Zero incidence rate of rabies in humans first was reached in 2015. In 2016-2017, this level was maintained.

In 2019, 61,893 cases of contact with animals, suspected of being infected with rabies, were reported (in 2018 - 59,420). Of these contucts, in 53,558 cases vaccination against rabies was conducted under the State program. The number of vaccinated included 18.5% of the combined (vaccine + immunoglobulin) prophylactic vaccinations. In Georgia, in 2019, 1 case of rabies was registered. Annually approximately 35,000 - 49,000 people are vaccinated against rabies.

Rabies Cases, Georgia

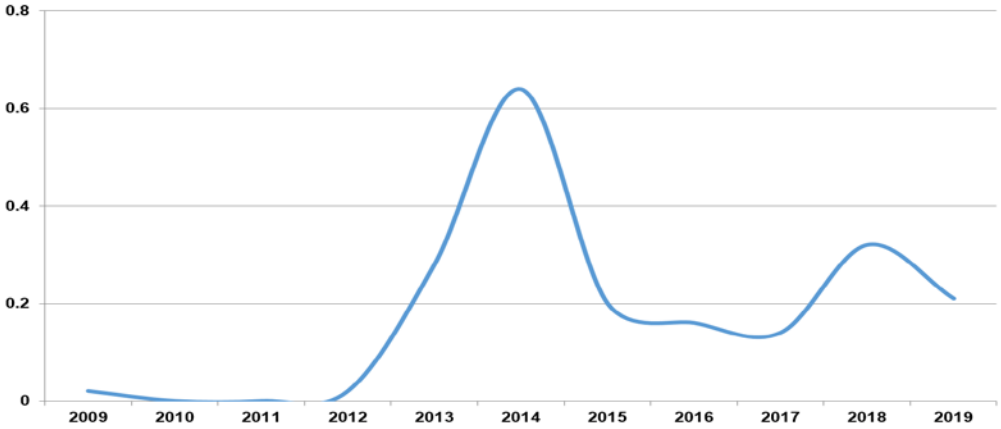


Crimean-Congo Hemorrhagic Fever

In 2014, an outbreak of Crimean-Congo hemorrhagic fever occurred in the eastern part of Georgia. There were 24 cases of Crimean-Congo hemorrhagic fever (incidence per 100,000 population - 0.6). Four people died (case fatality rate - 16.7).

In 2018, the first time since 2014, the incidence of Crimean-Congo hemorrhagic fever has increased (incidence per 100 000 population - 0.3). In 2019, 8 cases of Crimean-Congo hemorrhagic fever were registered.

Crimean-Congo Hemorrhagic Fever, Incidence per 100000 Population, Georgia

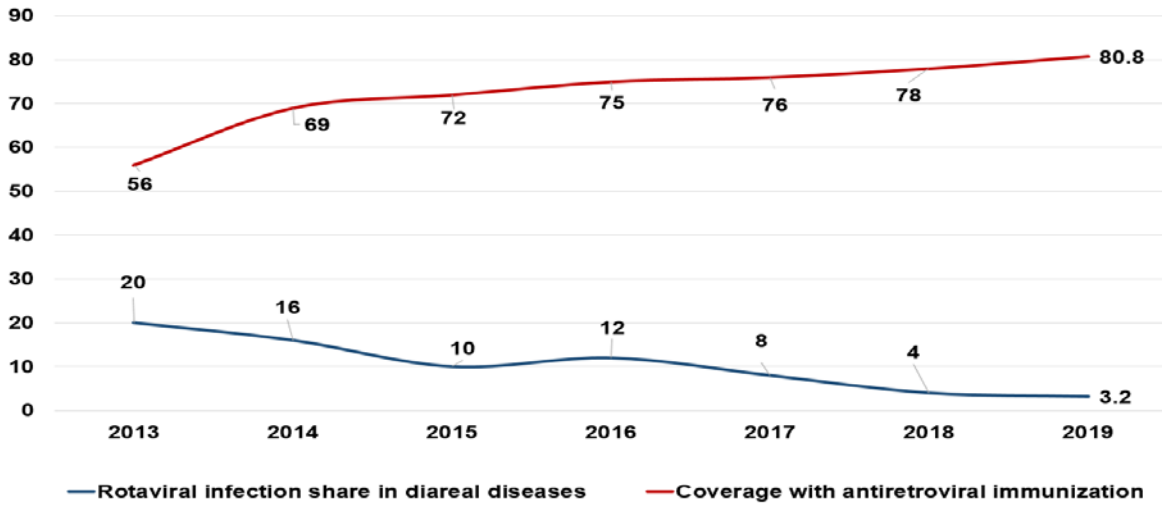


Rotavirus infections

In 2013, antiretroviral vaccination was introduced in the country. In 2019, coverage with antiretroviral vaccination was 81%.

Infection surveillance is carried out through sentinel surveillance. Since 2013, there has been a reduction of the share of rotaviral diarrhea wit (decrease equals 84%).

Share (%) of Rotaviral Diarrhea of the Total Checked Patients, Georgia, Sentinel Surveillance Data



In 2019, in the frame of the State program, fecal samples of 216 children were tested for rota-, noro-, and adenoviruses. Rotaviral etiology was found in 7 cases (3.2%), in 2 and 2 cases of noro- and adenoviral infection (0.9%) was found.

Hepatitis C

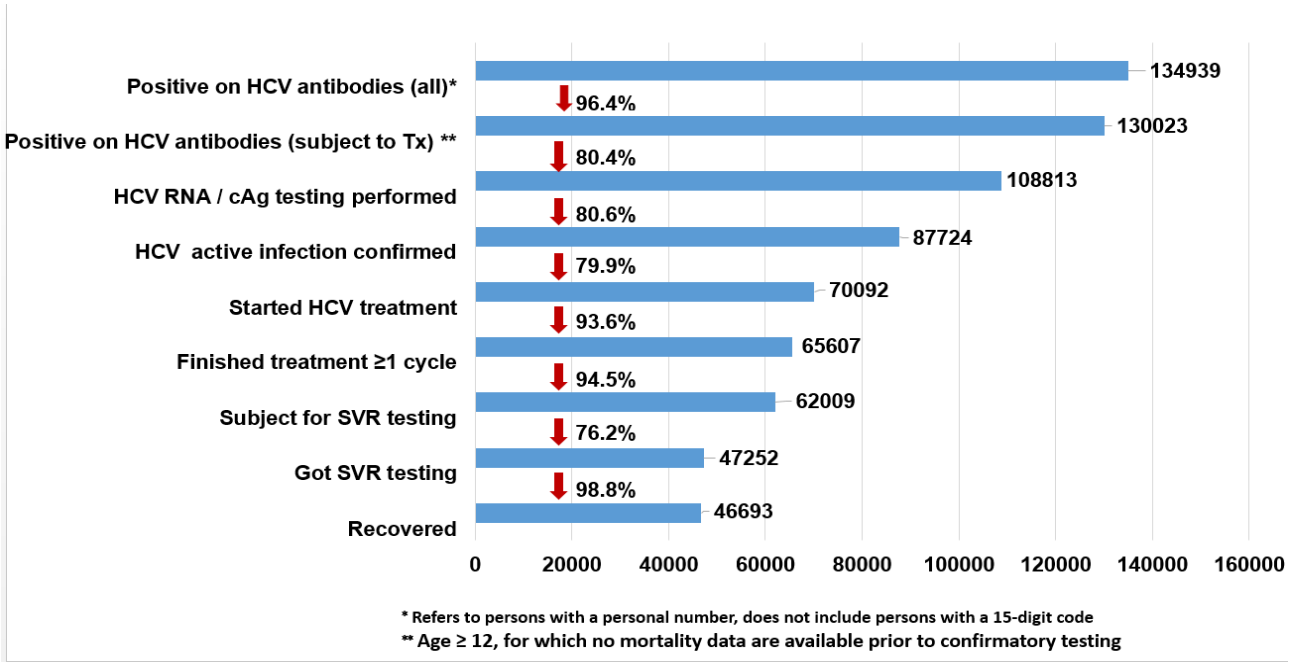
Georgia is among the countries with a high prevalence of hepatitis C. In April 2015, Georgia launched an unprecedented program aimed on the eliminating of hepatitis C in the country. In 2015, within the framework of the Hepatitis C Elimination Program, with a support of the CDC / Atlanta, for the first time in the country, a population-based "Survey of Seroprevalence of Hepatitis B and C in Georgia" was conducted.

To achieve the ultimate goals of eliminating of hepatitis C, a long-term strategy (2016-2020) was developed and approved in 2016. The strategy includes actions in various areas, such as awareness raising, surveillance, prevention, screening, diagnostics and treatment.

On February 11-13, 2019, in Tbilisi, the World Health Organization held the first regional consultation on viral hepatitis in the European Region "Achievements on the Road to Elimination" to reviewing the progress and challenges of countries in combating the viral hepatitis.

In 2019, at the International Liver Congress, Georgia was awarded the status of the first "model country to fight hepatitis."

Hepatitis C, Elimination Program, Treatment Cascade, 28.04.2015 – 30.06. 2020



The main objectives of the hepatitis C elimination strategy:

- Testing of 2.85 million adult citizens of Georgia for hepatitis C;
- Revealing of 135 thousand people (90% of the diseased population) with chronic hepatitis C;

- Treatment of 128 thousand (95% of identified) people with chronic hepatitis C infection;
- Cure of 122 thousand (95% of treated) carriers of chronic hepatitis C infection.

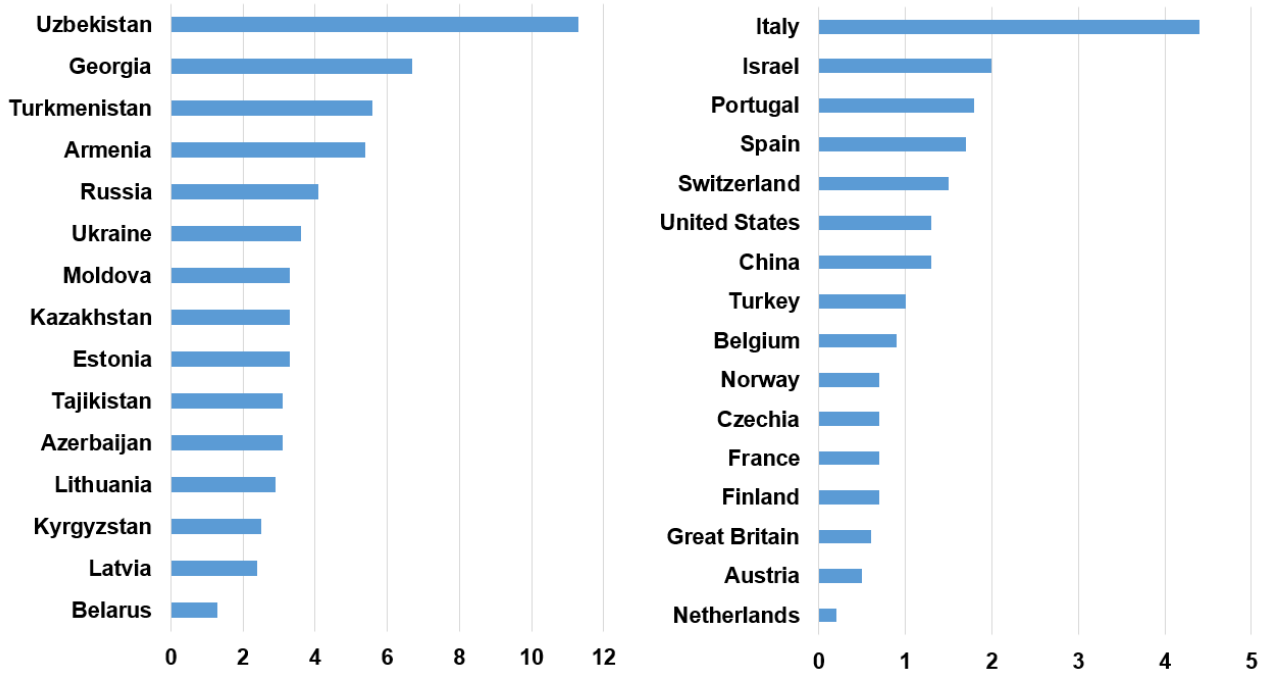
2020 situation analysis of data registered in the unified electronic system for hepatitis C screening:
By February 2020, about 4 million screening tests have been registered in the electronic hepatitis C screening module. The number of tested population approached 2.3 million, with positive rate of 6.8%. Almost 70% of the adult population (up to 2 million adults) were screened on Hepatitis C.

- A total of 3,791,001 screenings were registered (including people with personal number - 3,705,683), of which 178,685 (4.7%) screening tests were positive (including with personal number 158,522 - 4.3%);
- According to the data registered in the electronic screening database, the number of unique beneficiaries is 2223883 (including 2130030 identified by personal number), of which 152496 persons are positive 6.9% (including with unique ID number 133913 - 6.29%);
- The unique screening for hepatitis C in the adult population: screened 1,893,910 unique adults (66.3% of the target population). Among them, 150,322 people with antibodies were identified (70% of the target population). The detection rate is 7.9%.

Achieving these results was significantly caused by active testing of the population for hepatitis C, the testing is provided to all hospitalized patients, all pregnant women, blood donors, conscripts, and high-risk groups.

In 2019, 8671 new cases of hepatitis C virus were registered (incidence rate - 233.1), including 749 cases in children (incidence - 99.0).

Anti-HCV Prevalence Rate (%), 2016



Source: https://www.hpsc.ie/a-z/hepatitis/hepatitisc/worldwideprevalenceestimates/

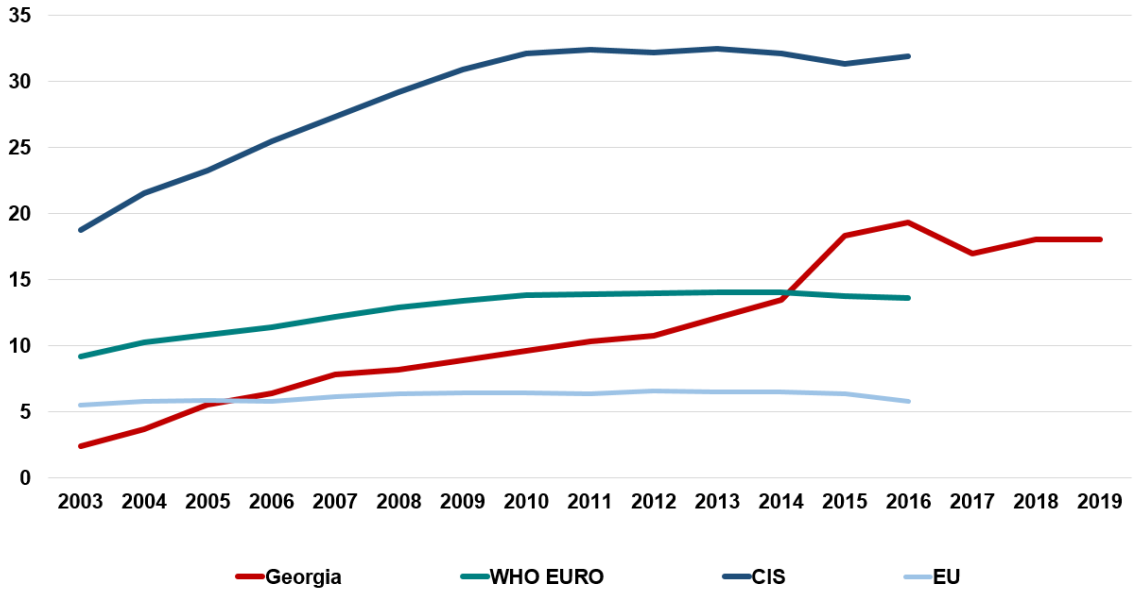
HIV / AIDS

Georgia is a country with a low prevalence of HIV / AIDS. In 2019, 668 new cases of HIV infection were registered in Georgia (incidence rate per 100,000 population - 18.0).

Last years, in the frame of various state programs (including Maternal and Child Health, Safe Blood, and HIV AIDS) targeted populations, such as pregnant women, donors, high-risk behavior population, and other risk groups were tested for HIV, these programs included “Voluntary screening of accused / convicts in the penitentiary system for HIV / AIDS”. In 2019, 441119 tests were conducted under the state programs.

Under the Global Fund program, representatives of high-risk behavioral groups (NMS, CSM women, MSM) were provided with HIV preventive packages, including voluntary HIV counseling and testing.

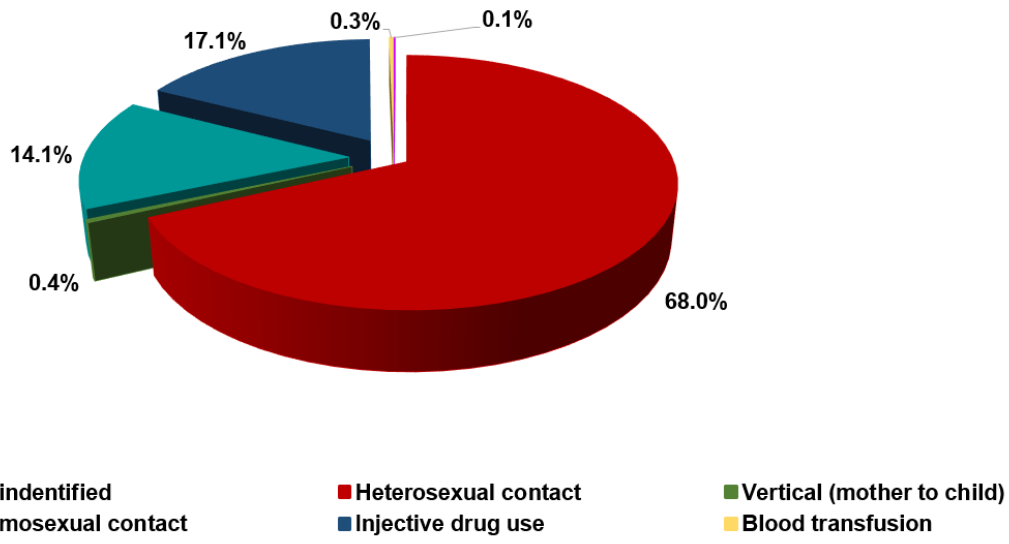
HIV Incidence per 100 000 Population



Source: HFA DB, NCDC

In 2019, 39.7% of new HIV cases were diagnosed at the AIDS stage (in 2018 - 40.6%).

HIV Infection Distribution by Ways of Transmission, Georgia, 2019



Compared to other countries in the region, Georgia has a high performance rate of the second and third 90 UN targets - rates of involvement of HIV-infected people in the antiretroviral treatment and achievement of viral suppression. State and Global Fund provide finding of the universal access of the AIDS patients (including the population of Abkhazia) to antiretroviral drugs.

Georgia's antiretroviral treatment program is recognized as one of the best in the region of Eastern Europe and Central Asia. The program has a high coverage, is sustainable, and provides a high quality of services.

Georgia was among the first countries in the region to introduce a "treatment for all" strategy to start treatment for people living with HIV / AIDS, regardless of the number of CD4 cells, this significantly improves the treatment outcomes and helps stop the spread of HIV / AIDS in the country.

In 2019, in line with the Global Fund AIDS-funded program of phased transfers, like in 2015-2019, using the state financing, the first-line ARV medicines were successfully purchased. In addition, in 2019, 50% of second-line ARV medicines were purchased.

In 2019, the Global Fund signed new grant agreements for AIDS and Tuberculosis. These agreements cover funding until 2022. Global Fund assistance will continue during 2022-2025.

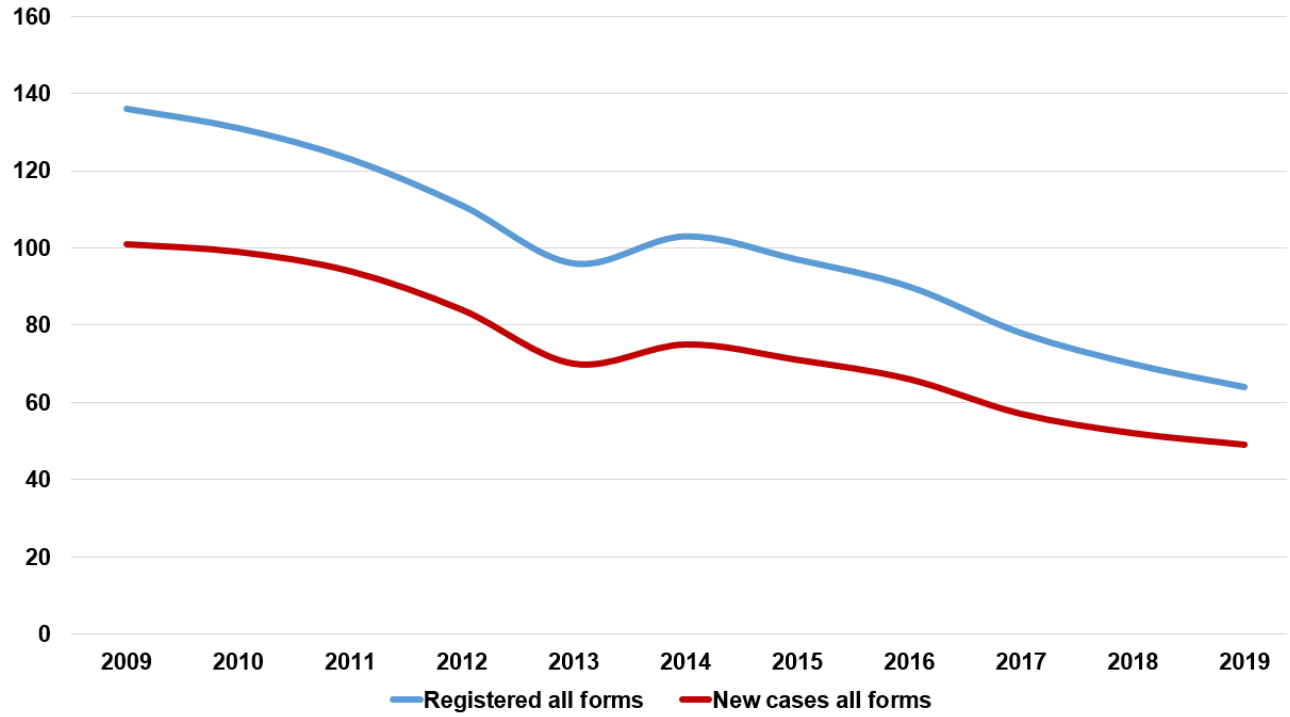
Tuberculosis

Last years, in Georgia, according to the World Health Organization, there is a decline of TB prevalence, although the rate is significantly higher compared to the European region and EU countries.

There is significant progress in the fighting against tuberculosis in Georgia. During last few years, the prevalence of tuberculosis has decreased by about 9%. According to a sustainable epidemiological surveillance system, this trend is a true decline of the disease incidence. It should be noted that in 2019 the Ajara region joined the "Zero Tuberculosis Initiative". An updated TB management guideline has been developed and implemented.

In 2019, 2448 cases of all forms of tuberculosis were registered (the registered prevalence of all forms of tuberculosis was 65.8 per 100000 population), including 1896 new cases (incidence per 100,000 population - 53.1). 78.6% of new cases were pulmonary tuberculosis. In 2019, 319 patients were diagnosed with resistant tuberculosis (MDR).

Tuberculosis, Incidence per 100 000 Population, Georgia



Since 2017, exposed to the index patients, which are diagnosed with pulmonary tuberculosis, have been added to the contact group. 2.0% of new cases and relapses of tuberculosis are reported in the penitentiary system.

Tuberculoses, Incidence per 100 000 Population, Georgia

Source: http://www.thelancet.com/lancet/visualisations/gbd-SDGs

Georgia, with assistance of the Global Fund, has managed to introduce effective anti-TB treatment for both sensitive and MDR patients. The country has ensured the universal access to both first and second line medicines. Under the State program new anti-tuberculosis drugs are available, a drug safety monitoring system has been introduced. Last years the management of multidrug-resistant TB included the use of new drugs.

A video surveillance (VOT) pilot program has been launched in Tbilisi to improve patient geographical access. Today 280 patients receive drugs through VOT.

Since 2019, the National Center for Disease Control and Public Health has started remote meetings (ECHO-TB) with TB managers of Adjara Public Health Centers, with the main goal to consult on TB management issues and provide them with lecture topics on various TB surveillance issues.

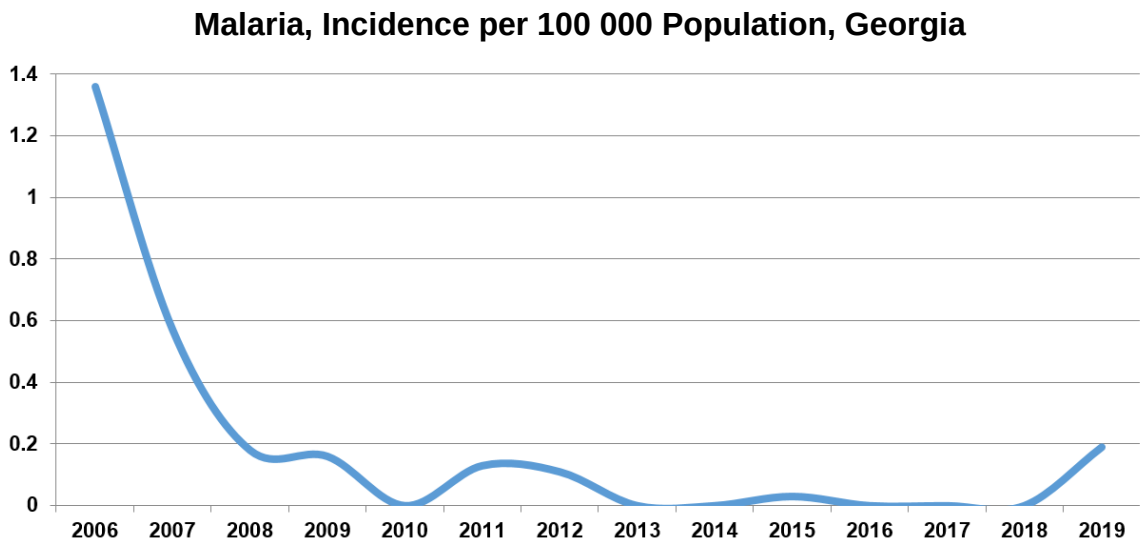
The methodical recommendation for the Survey of TB Index Patients was updated, approved by order of the Minister of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs. This recommendation is intended to improve the survey of contacts.

The country introduced modern diagnostic methods recommended by WHO: liquid culture, GeneXpert MTB / RIF systems for rapid diagnosis of TB and MDR-TB.

Georgia works in relationships with international partners and local organizations to ensure the effectiveness and sustainability of the TB program. The country is a partner of such multicenter studies as: FIND, EXPAND TB, STREAM, STAND, END-TB, Nix-TB.

Malaria

Since 2002 malaria incidence rate has been declining sharply and reached zero in 2013-2014. In 2019, 8 cases of malaria were registered in Georgia (one was a foreigner, 7 - citizens of Georgia). In 2019, the Ministries of Environment and Agriculture and Labor, Health and Social Affairs jointly carried out vector control of 9261030 m^2 of outdoor and indoor areas.



Non-communicable Diseases

The main part of the disease burden in Georgia falls on non-communicable diseases, which have a major impact on the most productive years of life. Non-communicable diseases affect not only health but also the sustainable development of the country.

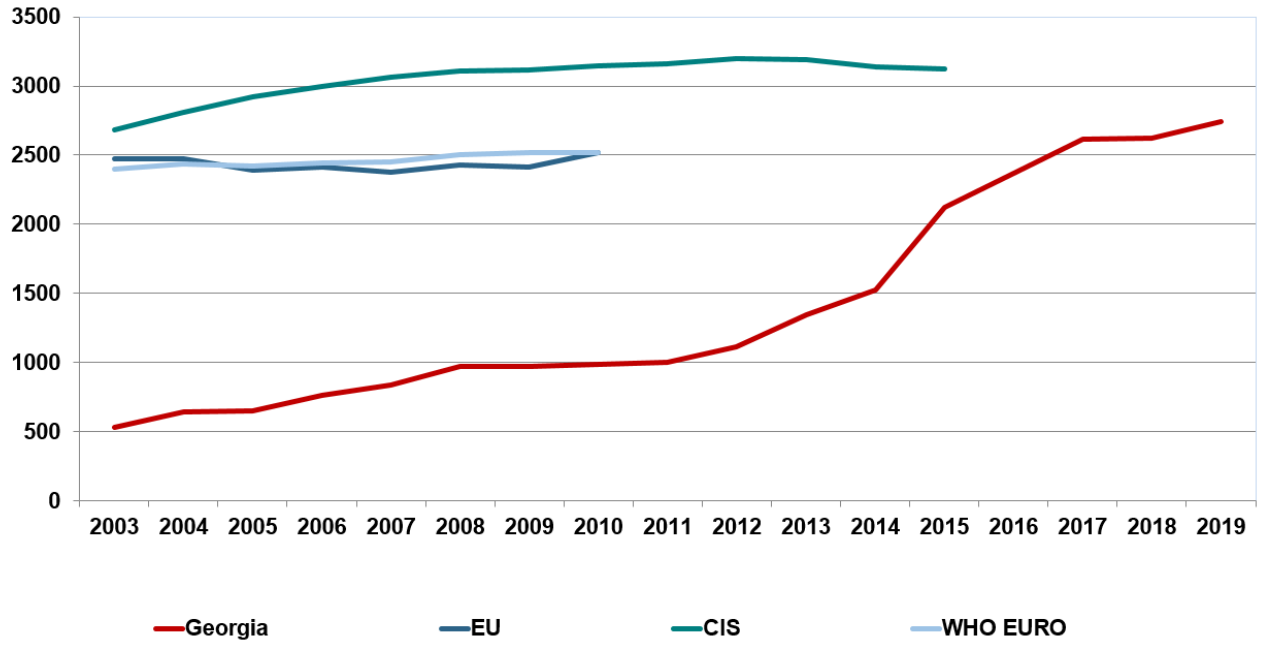
Effective prevention and control of non-communicable diseases requires access to accurate and reliable information, monitoring and identification of health indicators, monitoring and evaluation of interventions. In order to effectively control non-communicable diseases, Georgia has introduced the WHO STEPS methodology; STEPS surveys were conducted in 2010 and 2016 with the technical and financial assistance of WHO Europe and the Head offices.

Since 2017, the state program for provision of medicines for treatment of chronic diseases has been launched. The program covers: chronic cardiovascular diseases, chronic lung diseases, diabetes type II, thyroid diseases, epilepsy, Parkinson's disease.

Diseases of the circulatory system

The share of diseases of the circulatory system is 15.3% of the number of all diseases registered in the country, and 7.4% of the number of new cases. In this group of diseases hypertensive, ischemic heart diseases and cerebrovascular diseases have got high morbidity and mortality. In 2000-2018, in Georgia, there was an increase of the prevalence of the circulatory system diseases, although, in 2019, there is a decrease of the prevalence of the circulatory system diseases. The incidence rate also reduced in adults and in children as well (general incidence - 3770.5, incidence in children - 92.1).

Diseases of the Circulatory Syste, Hospital Admission Rate per 100 000 Population, Georgia



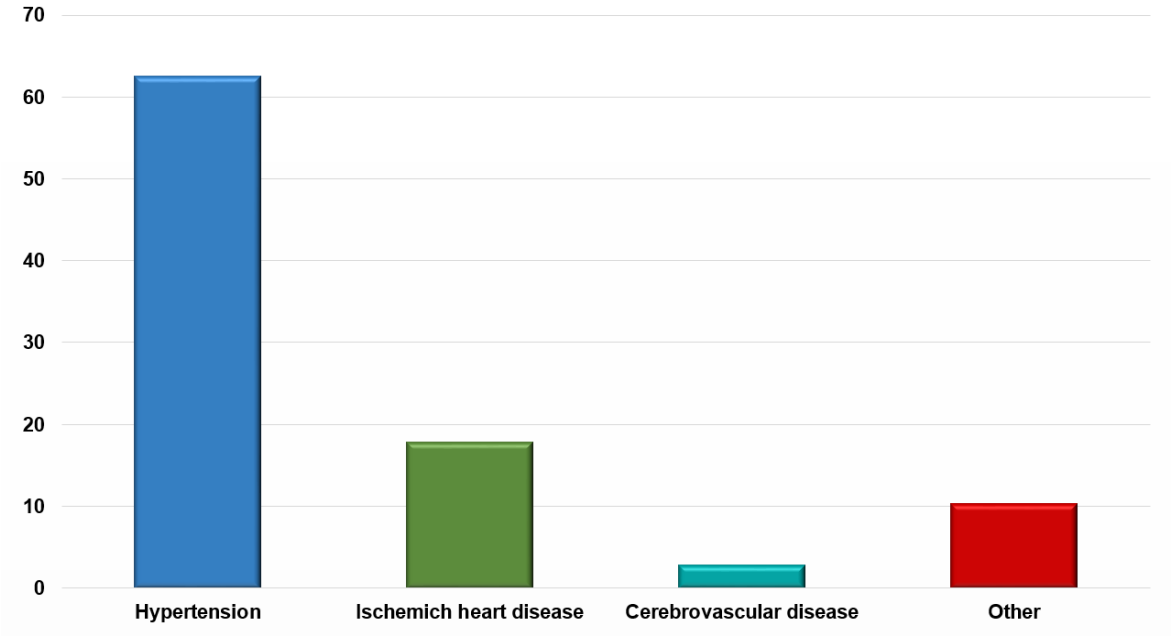
Source: NCDC; WHO HFA Database

Hypertensive disease

In 2019, in the structure of registered by the end of the year cases of cardiovascular diseases, hypertension share is 62.5% (in 2018 - 64.8%), in the structure of new cases - 46.6% (in 2018 - 48.5%).

According to the results of the STEPS2016 - a risk factors of non-communicable diseases survey, hypertension was registered in 37.7% of the population. According to STEPS2010 survey, this share was 33.4%.

Structure of the Circulatory System Diseases (%), Georgia, 2019



Ischemic Heart Diseases

In 2019, ischemic heart diseases accounted for 15.6% of new cases of the circulatory system diseases (in 2018 - 16.3%), including angina pectoris - 5.3% (in 2018 - 4.9%); acute myocardial infarction - 1.5% (in 2018 - 2.2%), other acute ischemic diseases - 1.9%.

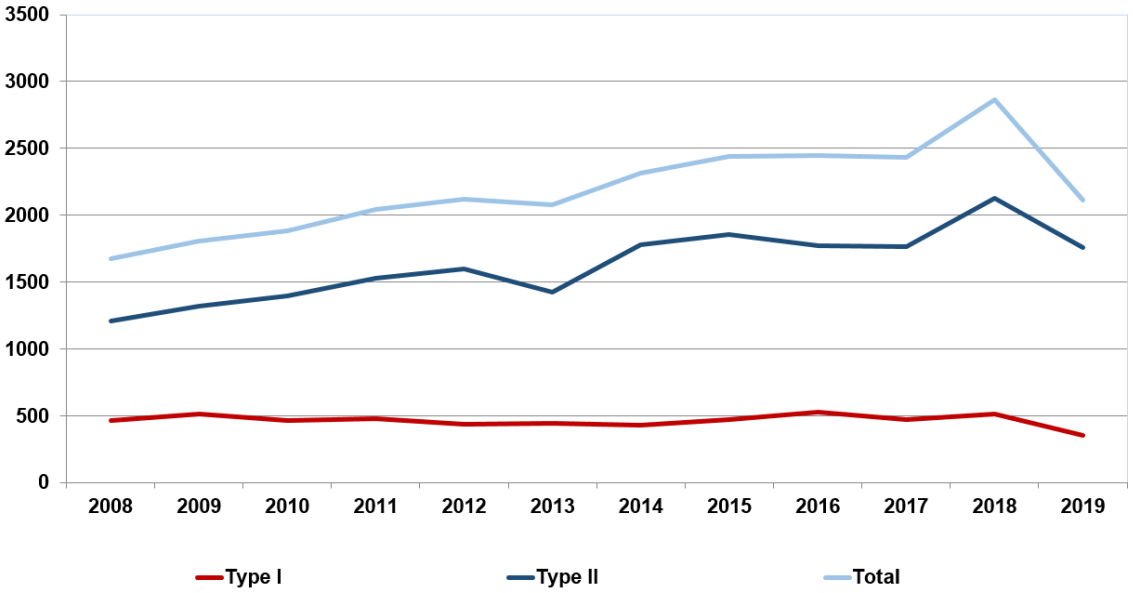
In the country, since introduction of the universal health care program, access to cardio-surgical intervention has significantly increased. In 2019, 15,131 cardiac surgeries were performed: 1,669 shunt insertion (in 2018 - 2,131), 686 rhythmological surgeries (implantation of cardiac stimulators; in 2018 - 232), 628 ablations (in 2018 - 516) and 157 valve prostheses (in 2018 - 133).

Diabetes Mellitus

In Georgia, last years, there is a growth of the number of diabetes cases, which is mainly caused by the growth of diabetes type 2. In 2019, on the background of a decrease of the incidence of diabetes type 1 and type 2, there is a 3.75-fold increase, compared to 2018, of the incidence of type 2 diabetes in children under-15.

According to the results of the STEPS2016 - a risk factors of non-communicable diseases survey, an raised fasting glucose level (6.1 - 7.0 mmol / L) was found in 2% of the population aged 18-69, and a high fasting glucose level (> 7 mmol / L) in 4.5%. of the population

Diabetes Mellitus, Prevalence Rate per 100 000 Population, Georgia



Chronic lung diseases

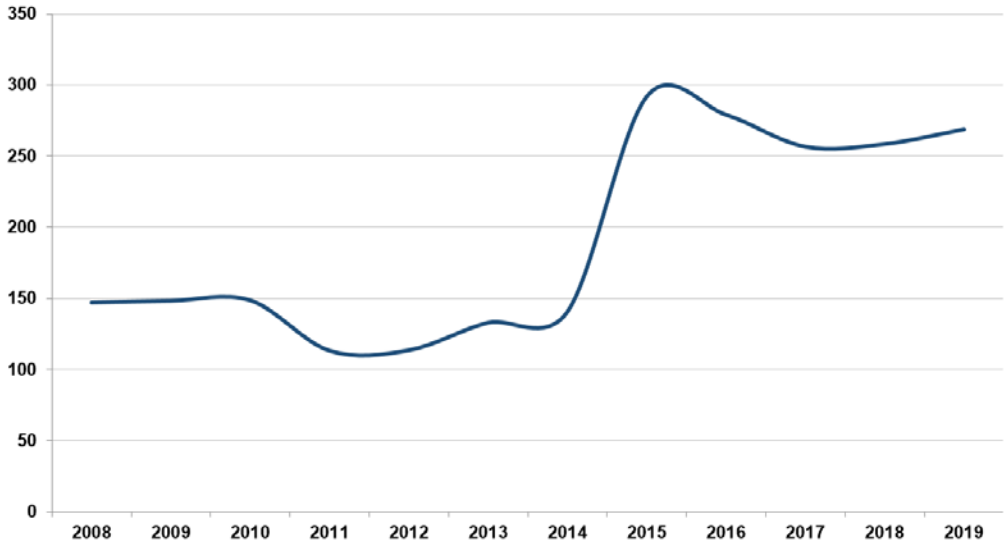
The group of chronic diseases of the respiratory system (asthma, allergic diseases of the respiratory system, chronic obstructive pulmonary diseases, occupational diseases of the lungs, pulmonary hypertension) is a major part of the diseases of the respiratory system.

In 2019, chronic obstructive pulmonary diseases (COPD) constituted 73.0% of the lower respiratory chronic diseases (in 2018 - 75.9%).

Malignant Neoplasms

In Georgia, on January 1, 2015, a Cancer Population Register was launched in order to improve the surveillance of oncological diseases. In 2019, according to the register data. 10,339 new cases of cancer were registered, the incidence rate per 100,000 population - 277.9 (in 2018 - 10417 new cases, incidence rate - 279.5).

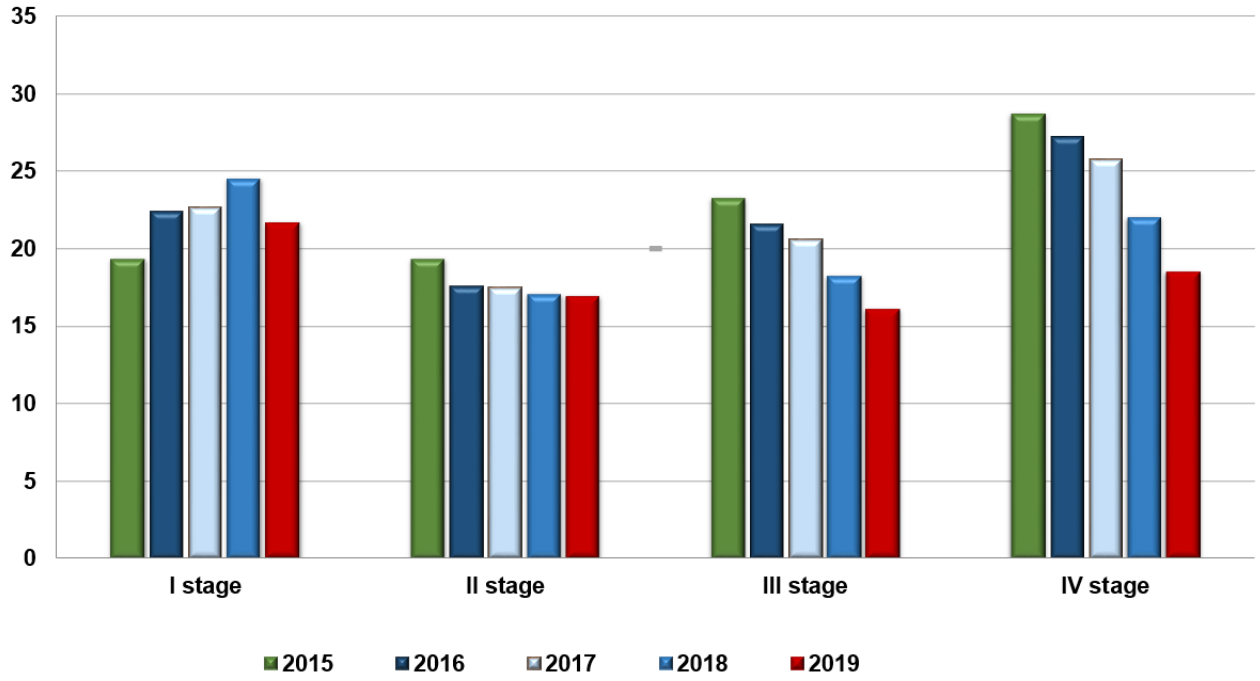
Malignant Neoplasms, Incidence Rate per 100000 Population, Georgia



In 2019, about 56% of all cancer sites were registered in women and about 44% in men. About 68% of all new cases of cancers are registered in the most active age group (30 to 70 years), 28% of cases - in the population aged 70+ years, 0.8% of cases - in children (0 - 15 years), 0.5% - in adolescents (15-19 years).

In 2015 – 2019, according to the Cancer Registry, 41.7% of new cancers of all sites were registered at I and II stages. A share of cancers, registered at stages III and IV, is still high.

Malignant Neoplasms by Stages of the Disease (%), Georgia



Top 5 Sites of Malignant Neoplasms in Women, New Cases, Georgia, 2019

Site	Number of new cases	Share of total number of all new cases, registered in women (%)
Breast cancer	1629	28.3
Thyroid gland	855	14.8
Colorectal	335	5.8
Corpus uteri	327	5.7
Cervix uteri	322	5.6

Top 5 Sites of Malignant Neoplasms in Men, New Cases, Georgia, 2019

Site	Number of new cases	Share of total number of all new cases, registered in men (%)
Trachea, bronchus, lung	623	13.6
Prostate	548	12.0
Bladder	405	8.8
Colorectal	376	8.2
Larynx	215	4.7

Malignant neoplasms, Methods of Treatment, Georgia[2], 2019

Method of treatment	Number of patients	% of the number of new cases
Surgery	7316	70.8
Chemotherapy / hormontherapy	5520	53.4
Radiotheraphy	2736	26.5
Symptomatic treatment	625	6.0
Iodine therapy	529	5.1
Palliative treatment	336	3.2
Immune therapy	63	0.6

In Georgia, the five-year survival rate of all cancers is low, compared to international rates. In 2015-2019, the five-year survival rate for all sites of cancers was 50.1%.

In 2019, in Georgia 7873 persons died from cancer, in most of cases the cause of death was trachea, bronchus and lung cancer (15%) and breast cancer (10%).

Environment and health

In Georgia, like in many other countries, the burden of diseases caused by harmful environmental impacts is quite high (17%). In order to reduce and prevent the burden of environmental-related diseases, and to reduce the population's exposure to environmental risks, a National Environment and Health Action Plan has been developed in accordance with requirements of the Association Agreement between Georgia and the EU. The "National Action Plan for Environment and Health in Georgia in 2018-2022 NEHAP-2" was approved by resolution N680 of the Government of Georgia from December 29, 2018. Georgia has begun implementation of its commitments under the National Environment and Health Action Plan using EU-supported twinning mechanism.

Newly developed National Environment and Health Action Plan set five strategic goals:

1. Ensuring public health through access to safe and sustainable water supply and improved sanitation. Ensuring access to safe water and sanitation for every child by 2021.
2. Improving access to healthy and safe environment and daily living conditions of children to increase their physical activity by 2021.
3. Assessment of outdoor and ambient air pollution impact on human health, and measures taken to reduce the harmful effects.
4. Prevention of disease caused by exposure of chemicals.
5. Integrating of health issues into climate change adaptation and mitigation policies.

In 2019, various activities of the EU Institutional Cooperation Mechanism - Twinning project "Institutional Strengthening of the Environmental Health System in Georgia" were carried out.

[2] *Cancer Population Registry and the Social Services Agency compiled data*

Recommendations for institutional arrangements in the field of environmental health were presented in the twinning project. Also, within the framework of the project, working versions of the following technical regulations were prepared:

- on bathing water regulations;
- on water quality for human consumption.

In accordance with the National Action Plan for Environment and Health (NEHAP-2) a plan of work and ongoing activities for 2018-2019 has been prepared. The composition and regulations of the Coordinating Council of the National Environment and Health Action Plan was approved.

In January 2019, an air quality portal was launched, in cooperation with the Ministry of Environment Protection and Agriculture of Georgia. The Portal posts public information on air quality monitoring results and health recommendations for each polluter in the accordance to international methodology.

The materials for the International Lead Prevention Week were prepared, a package of information for the lead bio monitoring protocol on the impact of lead exposure on humans, the sources of exposure and their prevention.
A national working group and answers to the standard questionnaire “Global Analysis and Assessment of Sanitation and Drinking Water - GLAAS in evaluation process (GLAAS 2018/2019) were organized.

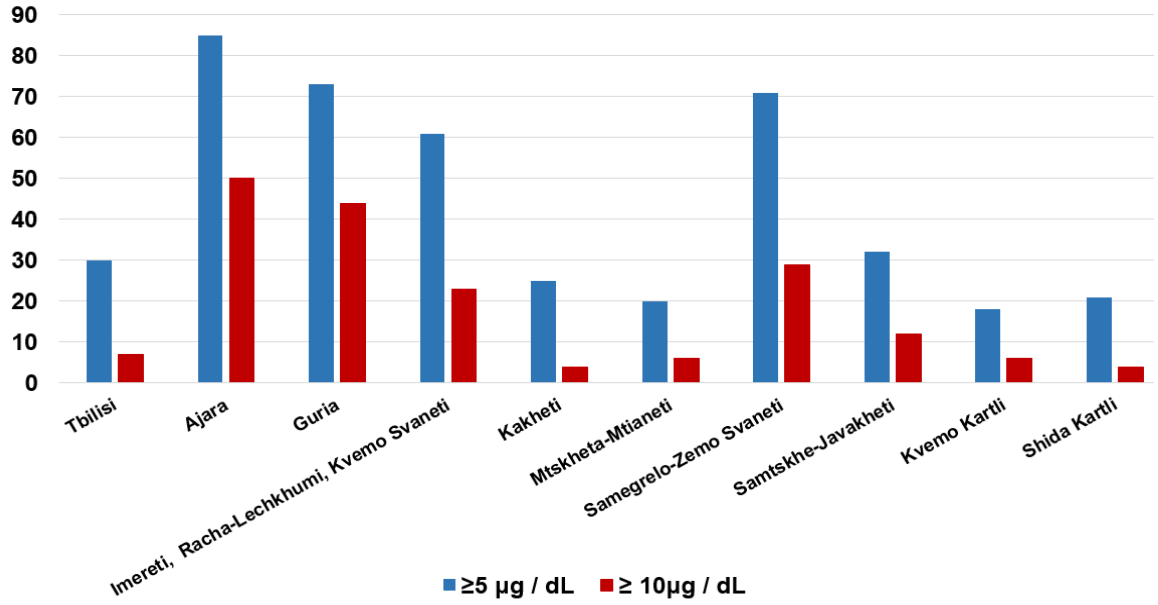
In Georgia, MICS survey was conducted with support of the National Statistics Office of Georgia, the United Nations Children's Fund, WHO and the NCDC in order to protect the population from harmful exposure and prevent environmental diseases. The results of the MICS lead study have highlighted the urgency of the issue and the need for a proactive approach. Lead was declared as a priority among the environment health issues and, due to the complexity of the problem, it is planned to develop a long-term multi-sectoral state program aimed at minimizing lead exposure and, in the best case, at the eliminating lead poisoning.

In 2018, as part of the Global MICS program, a multi-indicator cluster survey (MICS) was conducted in a close cooperation of the National Statistics Office, the United Nations Children's Fund (UNICEF), and the National Center for Disease Control and Public Health (NCDC). The MICS program – Multiple Indicator Cluster Survey, was developed by the UNICEF in 1990 to collect a wide range of internationally comparable indicators. MICS surveys measure key indicators that enable countries in providing policy-makers with the information they need to meet programs, national development plans, and sustainable development goals (SDSs).

The study looked at the increased lead level in the blood and the quality of household drinking water.

Lead is a toxic metal that causes damage of the brain and other systems of the human body. A high levels of lead in the blood can cause growth retardation in children, behavioral difficulties, learning difficulties, and, in pregnant women, premature birth, miscarriage, and stillbirth. The minimum, health-safe concentration of lead for the humans is not established. However, public health activities should be planned when the venous blood lead content equals to or greater than 5 µg / dL (micrograms per deciliter).

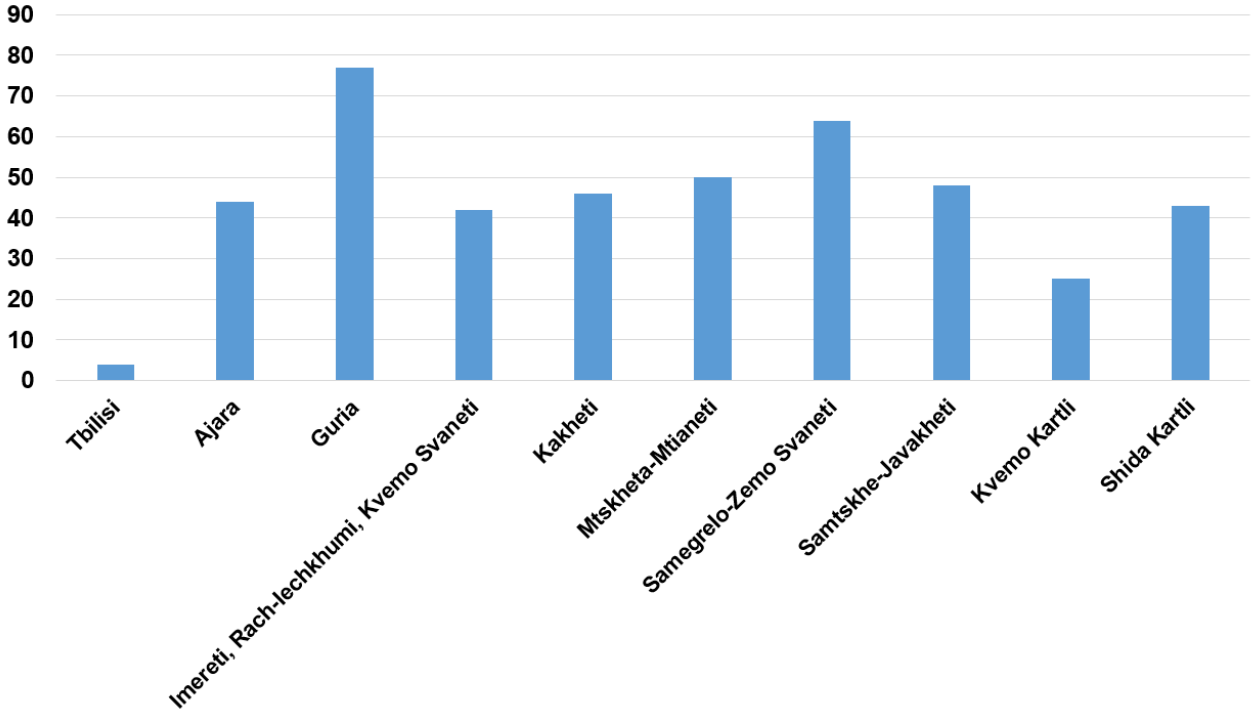
Elevated Lead Level in the Blood by Regions, MICS-2018



Source Multiple Indicator Cluster Survey (MICS SURVEY)

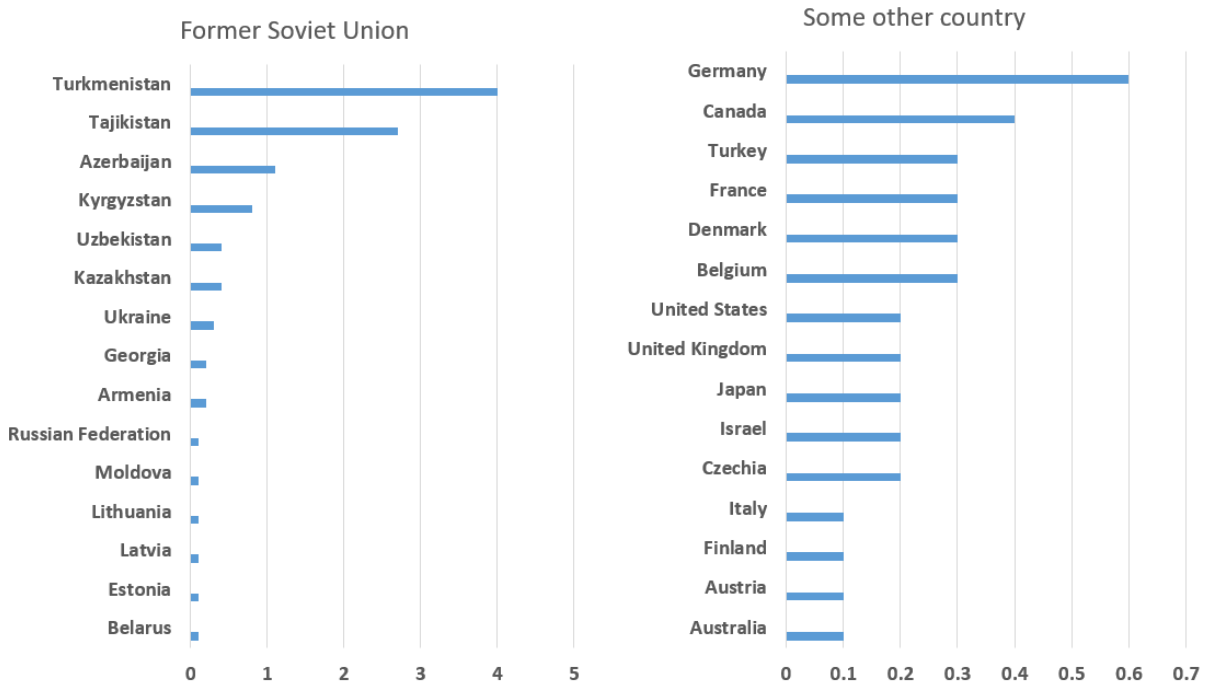
The household drinking water must be safe from epidemic and radiation points of view, chemically safe and have good organoleptic properties. The quality of household drinking water is determined by a detection of a health-threatening bacterium (E.coli) in drinking water.

Share of Households (%) with E.coli in Drinking Water, MICS-2018



Source Multiple Indicator Cluster Survey (MICS SURVEY)

Mortality Rate Attributed to Unsafe Water, Sanitation and Hygiene Services (per 100000 population)



Source: http://hdr.undp.org/en/indicators/174606

In any question applications, should be made to the National Centre for Disease Control and Public Health named after L.Sakvarelidze at 99, Kakheti Highway, Tbilisi, Georgia

E-mail: pr.ncdc@ncdc.ge

Web-site: ncdc.ge

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